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ABSTRACT

Abstracts of papers presented during discussion and display sessions, symposia, and training sessions at the Mid-South Educational Research Association (MSERA) Annual Meeting in 1988 are presented. Papers presented during the display sessions discuss the following topics: the use of data maps for displaying/analyzing statistical data; programs for recruiting minority candidates for careers in professional education; evaluating school effectiveness; computer-assisted instruction; stimulating research appreciation for grades 5 and 6; and interfacing competencies of early childhood education. Selected topics of papers presented during the discussion sessions and symposia include: inservice training needs of child care teachers; reading readiness; adult education; cognitive development and giftedness; attitudes; inservice education; learning; intelligence testing; evaluation; medical aspects; teacher thinking and teaching thinking; cost effectiveness of surveys; moral development; microcomputers; research methodology; college and graduate students; action research; special education; educational testing; teacher education; administration/supervision; curriculum; health education; mathematics; reading; predicting academic success; teacher certification; personality characteristics; learning styles; and counseling. The abstracts are compiled according to the order in which they were presented at the conference. The MSERA constitution and bylaws and an index of participants are appended. (TJH)

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Mid-South Educational Research Association

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Seventeenth Annual Meeting

Louisville, Kentucky

November 9-11, 1988

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PROCEEDINGS OF THE

SEVENTEENTH ANNUAL MEETING

OF THE

MID-SOUTH EDUCATIONAL RESEARCH ASSOCIATION

CONTAINING THE ABSTRACTS OF DISCUSSION SESSIONS,

DISPLAY SESSIONS, SYMPOSIA,

AND TRAINING SESSIONS

JOHN R. PETRY, EDITOR

LORRAINE J. GUTH, ASSISTANT EDITOR

NOVEMBER 9-11, 1988

LOUISVILLE, KENTUCKY

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1988

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Harry L. Bowman, Memphis State University

The Mid-South Educational Research Association was organized on March 20, 1972, on the campus of The University of Mississippi. It is a non-profit organization whose purpose is to encourage quality educational research in the Mid-South and to promote in the schools the application of the results of quality educational research. Any person who supports the purpose of the Association is eligible to join the Association.

MSERA SESSIONS ARE OPEN ONLY TO MSERA MEMBERS WHO ARE REGISTERED AT THE ANNUAL MEETING. BADGES SHOULD BE WORN TO ALL SESSIONS TO ENSURE ADMISSION.

ACKNOWLEDGEMENTS

This year marks the Seventeenth Annual Meeting of the Mid-South Educational Research Association. As in years past, 1988 has been another productive year for the Association. The apparent growth and success of MSERA are directly related to the quality of its membership and the tremendous time and attention its officers, board of directors, and committee chairs devote to its on-going operational and managerial tasks.

Expressions of appreciation are extended to the many members who conduct research and submit their papers to MSERA, without which this Seventeenth Annual Meeting would not be possible. Of equal or perhaps even greater significance, commendations are also extended to the elected officers and appointed committee chairs who fulfilled their leadership responsibilities to the Association this year. There are no easy assignments in MSERA, as I am sure the following individuals would readily attest:

Lynda Lee, chair of the Annual Program Committee, and her committee members for providing outstanding service to the Association in planning and organizing the Annual Program;

Mickey Lee, chair of the Local Arrangements Committee, and his committee for many hours of work devoted to securing, allocating, and managing space for the meeting;

John Petry, Editor of the Proceedings, for dedicating more than a decade of outstanding service to MSERA. John devoted many hours of meticulous work to publish the Proceedings and chaired the ERIC Liaison Committee;

Judy Boser and Charles Faires, Co-Editors of the Researcher, for the countless hours they use throughout the year to ensure that MSERA members receive five issues of the publication. Special recognition is also given to the Editorial Board Members, Glennelle Halpin, Anne Tishler, John Burns, John Enger, Ron Adams, Lynda Lee, Jeff Gorrell, Susan Kappelman, Carolyn Reeves-Kazelskis, Tom Saterfiel, E. Dean Butler, Sheldon Clark, Brooks Applegate, and Nan Lintz for their service to the Association;

Gypsy Abbott-Clayton, Secretary/Treasurer of MSERA, for fulfilling an extremely functional role during the year and at the Annual Meeting in coordinating registration and managing the membership and financial records for the Association;

Jim Flaitz, Chairman of the Annual Meeting Evaluation Committee, and his committee for an excellent job in planning the evaluation for the meeting.

Other chairs and their committees who have performed exceptionally well in performing their duties and fulfilling their responsibilities for the Association include: Harry Bowman, Executive Secretary and Chairman of the Constitution and Bylaws Committee; Bill Deaton, Immediate Past-President of MSERA, who also serves the dual role of Chairman of the Nominations Committee; Carl Martray, Vice President/President Elect, for his work as Chairman of the Outstanding Papers and Distinguished Dissertation/Theses Award; Robert Kennday, 1989 Local Arrangements Committee Chairman; Susan Kappleman, Chair of the 1990 Local Arrangements Committee; Joan Butler, Chair of the Future Sites Selection Committee; David Morse, Chairman of the Publications and Communications Committee; Bruce Crowe, Graduate Student Coordinator; and Dot Reed, Chair of the Membership Committee.

I must include in this acknowledgement recognition and gratitude to the invisible task force of departmental secretaries from our member institutions who perform a variety of clerical duties, especially to Barbara Mize, Secretary of Curriculum and Instruction at Mississippi State University, who has rendered four years of service to this Association.

Finally, I am indebted to my colleagues and administrators at my institution for the unselfish support they have provided during my tenure as President of MSERA. The opportunity to serve this Association has been a humbling experience which I will always cherish.

Carolyn C. Williams,
MSERA President, 1988

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ABSTRACTS OF DISCUSSION SESSIONS, DISPLAY SESSIONS, SYMPOSIA, AND TRAINING SESSIONS

WEDNESDAY, NOVEMBER 9, 1988

8:00 a.m. - 4:00 p.m. Registration . . . . . Meeting Area

8:00 a.m. - 8:50 a.m. NEW MEMBERS' RECEPTION . . . . . President's Suite

9:00 a.m. - 9:50 a.m. DISPLAY SESSIONS

Presenters: "THE USE OF DATA MAPS FOR THE DISPLAY AND ANALYSIS OF STATISTICAL DATA". . . . . .Aberdeen

Todd M. Davis, Memphis State University

Data maps have been available as a tool for statisticians since the 17th century. Unfortunately, in recent times, they are typically employed for the purposes of data summary rather than analysis, and then, only infrequently. For example, the 1980 edition of The Condition of Education report by the National Center for Educational Statistics contains over 100 graphic displays, of which only five are data maps. This under-utilization is unfortunate in light of Tufte's observation that "no other method for the display of statistical information is so powerful." This display paper demonstrates that, in this era of desk-top publishing, the use of data maps for the summary and analysis of the educationally-related data is possible.

In this display, examples of data maps prepared for higher education planning purposes, K-12 public school instruction, and the analysis of attitude survey data will be shown. Steps in the preparation of these graphics, using MapMaker and GeoQuery software, will be illustrated. Cautions in the construction of data maps and in their interpretation will be noted.

"PROGRAMS FOR THE RECRUITMENT, RETENTION, AND SUPPORT OF MINORITY CANDIDATES TO CAREERS IN PROFESSIONAL EDUCATION" . . . . . Bagpipe

Timothy J. Pettibone, Russell French, Pat McNeal, and Suzanne Hopkins, The University of Tennessee, Knoxville, and J. Jackson Barnette, Memphis State University

The Tennessee Association of Colleges of Teacher Education and the Appalachia Educational Laboratory sponsored the formation of a study group to provide information and leadership in combating the increasingly critical shortage of minority educators. The study group consisted of 12 individuals selected from Tennessee's colleges and universities. The group first met in February, 1988 and invited representatives from the newly-formed State Task Force on the Supply of Minority Teachers. It was decided that the first task would be to identify programs currently underway across the country. The display session will present a number of these programs in summary form along with materials depicting the specifics of successful programs from Connecticut, North Carolina, South Carolina, Tennessee, Texas, and other states. Copies of the full report will also be available for review. Several members of the study group will be available to answer questions.

"EVALUATING SCHOOL EFFECTIVENESS: A DISAGGREGATED ANALYSIS OF PUPIL ACHIEVEMENT DATA". . . . . Ruskins

Henriette Allen and James Tadlock, Jackson (MS) Public Schools

The school effectiveness movement is based on the claim that all pupils can achieve mastery of essential objectives without regard to family or personal background. Evaluation of this claim must be made by disaggregating and comparing pupil performance by various groups. This study will describe the development of a process for disaggregating pupil performance data and will illustrate the value of the resulting information for educational planning to an urban school district. Specifically, the study will demonstrate that within large groups that seem to be doing well, there are subgroups that need special assistance in order to achieve minimum mastery.

The most basic model will simply delineate the percentage of pupils in each social class (or other group) achieving minimum mastery on standardized tests. An intermediate model will include the variables of social class, gender, and number of parents in the household. The most advanced model will examine the independent and

interactive relationships between social class, gender, and race on standardized tests results and on course grades in reading and mathematics.

The study will be illustrated in both tabular and graphic format on posters and will be described in a paper. School district staff members will be available for questions and discussion.

"WICAT COMPUTER-ASSISTED INSTRUCTION AT ST. ANNE'S CONSENSUS SCHOOL: THE SECOND YEAR". . . . . Shannon

Roy B. Clariana and Charles W. Schultz, Memphis State University

This display will include charts showing the Iowa Test of Basic Skills (ITBS) scores for math, reading, and language arts for each of grades 4 through 8 for 79 students with available test scores for the years 1985, 1986, 1987, and 1988. The 1985 and 1986 scores indicate performance before the introduction of the WICAT system, while 1987 and 1988 scores show performance of the same students after the introduction of the system. The display will also include tables with the same information presented in the charts and a summary paper in abstract form that describes the school, the subjects, and the method of CAI implementation.

Information presented from many studies of CAI performance of elementary and junior high students usually involve short-term computer use and experimenter designed tests. The information presented in this display covers a two-year period of continuous daily use. Each student spends 30 minutes every school day on the WICAT system. As schools purchase more computers and as pressure mounts for instructional accountability as measured by increased national achievement test scores, information of this type will be helpful for administrative decision making, as well as for strictly theoretical purposes.

"STIMULATING RESEARCH APPRECIATION IN THE FIFTH AND SIXTH GRADES". . . . . Edinborough

Robert L. Kennedy, University of Central Arkansas

To encourage the 200 fifth-grade and sixth-grade students enrolled in rural Vilonia Elementary School in central Arkansas to continue their studies and further their education, a series of speakers was invited to stimulate their interest in various topics. Entitled "Your Dreams Can Come True," the program included discussions of speech pathology, flight and aviation, and research and statistics.

To pique the interest of the students in research and statistics, the researcher and the elementary principal investigated areas in which the student could participate in decision-making. Several possibilities emerged: qualities of a good teacher, awards and honors, rules, supplies, and fund-raisers.

From this list, a questionnaire was generated that was administered to all fifth and sixth graders. The data were collected, analyzed, and then presented to the students. The spirited discussion of the findings seemed to indicate a heightened interest and/or awareness on the part of the students with regard to research and statistics.

The display will include visuals for the student presentation, including the results of the study, the questionnaire, papers, and the use of the findings in school decision making.

"INTERFACING COMPETENCIES OF EARLY CHILDHOOD EDUCATION WITH PUBLIC LAW 99-457" . . . . . .Gaelic

David Bell and Georgine Steinmiller, Henderson State University

Many of the current methods of training and credentialing individuals to work with handicapped children aged three to five are inadequate. Many states do not even recognize this group as a part of the credentialing process. There appears to the general agreement among professional groups and organizations with interest in serving the needs of this population that the training provided for individuals to work in this area needs study and revision. It should also reflect ideal program practices and effective personnel preparation.

WEDNESDAY, NOVEMBER 9, 1988

This poster session will examine the National Association for Education of Young Children's guidelines for the preparation of early childhood education professionals. Their suggestions for preparation will be compared to related skills special education teachers will need to comply with P.L. 99-457 as they attempt to work with this new population of students.

This poster session will identify needed teacher competencies that will fit into the matrix for both NAEYC guidelines and the requirements of P.L. 99-457. It will identify a list of needed skills or characteristics that special education teachers will need to display as they begin to serve that population of pre-school age children.

10:00 a.m. - 10:50 a.m. EARLY CHILDHOOD EDUCATION (Discussion) . . . . . .Aberdeen

Presider: Jasmin McConatha, Auburn University

Presenters: "THE EFFECTS OF RETENTION ON ACADEMIC ACHIEVEMENT OF FIRST-GRADE STUDENTS: PHASE ONE STUDY"

Shirley Dance, Winona (MS) Public Schools, and Carolyn C. Williams, Mississippi State University

Does retention of first-grade students effect their academic achievement? Do the grouping patterns used for first-grade retainees affect their academic achievement? Answers to these questions continue to concern educators. Past researcher studies have consistently shown conflicting results.

The purpose of this study was to examine the effects of retention on the academic achievement of first-grade students and to determine if there were significant differences in the academic achievement of first-grade retainees who were heterogeneously and homogeneously grouped. Ninety-eight first-grade students participated in the study: 49 in the experimental group and 49 in the control group. The experimental group was subdivided into two groups. Group one represented first-grade retainees who were homogeneously grouped. The academic achievement, as measured by six subtests of the Stanford Achievement Test for both experimental groups, was compared with the achievement of a stratified sample of first-year, first-grade students. Analysis of variance was used to analyze data generated from the 1986, 1987, and 1988 school years.

Findings were: (1) significant differences (p. 05) favoring the control group were found on reading vocabulary, reading comprehension, total reading, listening skills, and total math skills; (2) no significant differences were found between the experimental and the control group for the environment subtest; and (3) no significant differences were found for academic achievement for the two experimental subgroups.

The results of this study revealed that retention of first-grade students or grouping patterns did not significantly affect academic achievement.

"AN ASSESSMENT OF INSERVICE TRAINING NEEDS OF CHILD CARE TEACHERS"

Sara Catherine Couch, University of Arkansas

The purposes of this study were to identify the inservice training needs of child care teachers in Arkansas, to compare directors' ratings to teachers' ratings of training needs, and to compare teachers' work and personal characteristics to training needs.

Data were gathered by mailed questionnaire throughout the state. The 43-item questionnaire surveyed teachers' perceived training needs regarding topics and methods; preference for training locations, times, and costs; and work and personal characteristics.

Major findings of the survey were: 57% of the directors worked over 40 hours each week, whereas 47% of the teachers worked 36-40 hours each week; 62% of the directors had completed college, whereas 54% of the teachers had completed high school or had fewer years of education; directors rated management topics higher than teachers, whereas teachers rated health, safety, and curricula topics higher than directors.

"AN EVALUATION OF THE PHYSICAL DEVELOPMENT OF KINDERGARTEN STUDENTS IN MISSISSIPPI"

Esther M. Howard and Gloria C. Correro, Mississippi State University

The purpose of this study was to determine if the 1986-87 and 1987-88 kindergarten students in Mississippi made significant progress toward the attainment of motor skills that have been identified as skills normally performed by 4-, 5-, and 6-year-old children. The Mississippi Physical Coordination Inventory (MPCI), a validated developmental checklist, was administered by kindergarten teachers to 5,000 students from 17 randomly-selected school districts in 1986-87. The MPCI was again administered in 1987-88 to 5,000 students in 24 randomly-selected school districts. Pretest and posttest administrations occurred in October and April during both school terms.

The Epistat Statistical Package was used to compute chi square values to determine whether or not significant differences existed between the number of students obtaining mastery of physical coordination skills in each of the age groups from pretest to posttest.

Results from the MPCI evaluations indicated a significant increase in the number of students obtaining mastery of physical coordination and body mastery skills in each of the age groups from pretest to posttest. However, when these results are considered in conjunction with national reports on the physical fitness of America's youth, the implication is that in Mississippi, as well as in the nation, elementary teachers must begin to integrate physical motor activities into the general curriculum in order to meet physical development needs of children.

"THE RELATIONSHIP BETWEEN PRIOR EXPERIENCE WITH PRINT AND READING READINESS"

Jane H. McHaney, Kennesaw College, and Nita Poulos, Cobb County (GA) Schools

The purpose of this study was to investigate the relationship between a kindergarten child's prior experience with print, as reported on a questionnaire completed by the child's parent, and the child's scores on the Marie Clay Concepts About Print Test.

The subjects of this study were from an intact kindergarten class. Participation in the study was voluntary; a parental consent form was collected for each child. The data were collected in the fall, 1987. To test the hypothesis that prior home experience with print is not an environmental precursor of print awareness, a simple linear regression was used to analyze the data.

The results indicated a significant relationship between the questionnaire and the test of print awareness at the .05 level. The questionnaire accounted for greater than 50% of the total variance, $r^2 = 0.558$ when regressed on the Clay test. Conclusions and implications will be discussed during the presentation.

10:00 a.m. - 10:50 a.m. PREDICTING SUCCESS (Discussion). . . . . Bagpipe

Presider: L. Quinn Head, Jacksonville State University

Presenters: "PERSONALITY VARIABLES USED TO PREDICT PERFORMANCE OF GRADUATING TEACHER EDUCATION MAJORS ON THE NATIONAL TEACHER EXAMINATIONS"

Lynda N. Lee, Robert L. Byrne, and Mickey M. Lee, Eastern Kentucky University

The purpose of this study was to determine the predictive ability of 10 personality variables as measured by the Minnesota Multiphasic Personality Inventory (MMPI) on the performance of graduating teacher education majors as measured by three Core Battery Tests of the National Teacher Examinations (NTE). The Core Battery Tests consisted of the tests of Communication Skills (CS), General Knowledge (GK), and Professional Knowledge (PK). The subjects consisted of 163 students who completed the MMPI and the NTE Core Battery Tests between the 1984-1985 school year and 1988 spring graduation. Stepwise multiple regression analysis was conducted between the 10 MMPI

predictor variables and the three Core Battery Tests of the NTE. The results indicated that Scale # 4 (Pd) of the MMPI best predicted scores on the Test of Communication Skills $F = 6.06$, $P = .01$. Scale # 0 (Si) of the MMPI best predicted scores on the Test of General Knowledge $F = 10.89$, $P = .001$. Scales # 4 (Pd), # 0 (Si), and # 9 (Hy) of the MMPI best predicted scores on the Test of Professional Knowledge $F = 6.07$, $P = .0006$. The implications of these results will be discussed.

"PREDICTING SUCCESS IN AN INTRODUCTORY STATISTICS COURSE"

S. Mark Templeton and Marcia R. O'Neal, The University of Alabama

The completion of prerequisite math courses does not guarantee that students (graduate or undergraduate) will have success in introductory statistics courses. An instrument or a set of criteria used to screen students before entering a statistics course would be useful to both students and the instructors.

To determine which variables can predict success in a statistics course, 18 undergraduate and 19 graduate students enrolled in an introductory statistics course were given a pretest and a questionnaire. The test was a 28-item true-false math skills pretest. The questionnaire asked for biographical information, history of previous math classes, and level of computer expertise. The students' success in statistics was measured by the mean of three 100-point tests administered throughout the semester.

A regression analysis showed that, although the pretest was a significant predictor of success, the best predictors were the combination of variables qpa, computer experience, and number of math classes. The findings suggested a pretest need not be administered. Only a brief survey of the students' history is needed to predict their success in statistics.

"PREDICTION OF SUCCESS IN A PROFESSIONAL EDUCATION DESIGN COURSE"

Walter A. Schaer and Barbara B. Schaer, Auburn University

The need for accurate predictors of success in educational programs becomes more acute with escalating costs. Although schools of architecture and design have depended upon traditional predictors (ACT and HSGPA) for entrance, additional barriers employed to equate numbers of applicants to available space have not been researched and have even been political at times.

The current study was a search to find additional predictors that reflect success in basic entrance design courses. A team of three professionals selected two instruments measuring the ability to mainipulate/transform images into other patterns as content valid indicators: the Surface Development and Snowy Pictures tests.

Twenty undergraduate students in an introductory professional design course responded to two measures at the beginning and end of the quarter. One-factor MANOVA with repeated measures on the visual tests resulted in significant interaction effect ($F = 4.45$, $df = 2, 17$, $p < .05$) and main effect of trial (repeated measures) ($F = 11.11$, $df = 2, 17$, $p < .05$). However, the main effect for success/failure was not significant. ANOVAs show the Snowy Pictures Test significantly determines the group by trial interaction. Successful students showed increased pre-post means ($X = 16.3$ to $X = 19.4$), whereas unsuccessful students decreased ($X = 17.0$ to $X = 15.6$) means.

"SCHOOL DISTRICT VARIABLES AS PREDICTORS OF MATHEMATICS ACHIEVEMENT"

J. Reid Jones and J. Paul Messer, Delta State University, and Susan Hart-Hester and Donna Lander, Mississippi State Department of Education

Mississippi is heavily committed to improvements mandated by the state's Education Reform Act. Evaluation of district progress has been performance based, emphasizing mastery of the state's curriculum objectives. Annual testing occurs at grades 3, 5, 8, and 11. This paper focuses on formative evaluation of progress, identifying district variables that are associated with either strong or weak mathematics performance.

Data were collected for all 154 school districts in the state. Summary statistics on 68 variables include information on the county of residence, demographic and economic information on the district, and test scores of the district.

Results of stepwise regressions showed that economic factors and the educational environment of the district are generally the best predictors of mathematics performance. Three categories of objectives caused the greatest difficulty in basic mathematics skills performance: (1) computational skills beyond whole numbers (fractions, decimals) in the elementary grades, (2) problem solving in the secondary grades, and (3) metric conversions in the elementary grades.

By identifying those district variables associated with continuing mathematics strength or weakness, specific plans for progress have been formulated. Teacher developed materials from the more successful districts are among the most promising resources for the less successful districts.

10:00 a.m. - 10:50 a.m. ADULT EDUCATION (Discussion) . . . . . Ruskins

Presider: Mary J. McNelis, Memphis State University

Presenters: "AN EXAMINATION OF A SELECTION PROCESS FOR DETERMINING THE MOST APPROPRIATE METHOD OF INSTRUCTION FOR DISPARATE GROUPS OF ILLITERATE ADULTS"

Lonnie D. McIntyre, The University of Tennessee, Knoxville

The purpose of this study was to provide a research basis for the selection of the most effective method of instruction for illiterate adults. The subjects were non-readers receiving reading instruction at experimental or control sites during the project period.

Subjects were tested with The Wide Range Achievement Test (WRAT) upon entry into the project and after each 20 hours of instruction, student improvement were measured on the basis of reading gain scores. Reading gain was defined as the increase in grade level (score after 20 hours of instruction time) on the WRAT. Independent t-test and non-parametric Kruskal-Wallis test were used to determine whether there were significant differences in reading gains between experimental and control groups. Thus, it was possible to establish if one method of instruction was superior and with which particular group(s) of student each of the the methods (computer, LVA, Laubach) was most effective.

"READING HABITS OF STUDENTS IN ADULT BASIC AND SECONDARY EDUCATION PROGRAMS"

Rex L. Leonard and John Rachal, University of Southern Mississippi, and Linda Jackson, Baptist Memorial Hospital, Memphis

This study sought to add to the limited research on the reading practices of the undereducated adult using a comparatively large sample. A sample of 217 students enrolled in two Mississippi junior colleges' ABE or GED classes were administered a questionnaire to examine their reading habits. The sample was studied as a whole and by the demographic variables of race, gender, age (14-19, 20-29, 30-39, 40-49, 50-67), and reading level based on their TABE scores ($\leq$ 5.0, 5.1-7.9, $\geq$ 8.0).

The most salient conclusion was that, as a group, they were by no means non-readers, though their time spent reading is less than the general population. Most reading was "educational" (including news), and least was "job related" and "recreational." Though most had read a book (or part of a book such as a Bible) in the last six months, they were generally not book owners, though most subscribed to or bought regularly a newspaper or magazine. A plurality (44%) felt that were "good" readers. Responses to several questionnaire items varied by race, age, and TAB score.

"THE PURSUIT OF WISDOM: EDUCATION FOR THE SECOND HALF OF LIFE"

Russell C. Wilson, Auburn University

The task of youth is to attain adulthood. The primary tasks of early adulthood focus on rearing the next generation. But what of the second half of life?

> A human being would certainly not grow to be 70 or 80 years old if his longevity had no meaning for the species to which he belonged. The afternoon of human life must also have a significance of its own and cannot be merely a pitiful appendage to life's morning.

Their task is the attainment of wisdom and self-transcendence: to rise above, to evolve beyond, to gain the broader perspective, to find meaning, and to provide guidance to the passions of youth and the distractions of filial responsibilities.

With the rise of pragmatic scientific-industrialism asking "How?" the ancient pursuit of wisdom declined. Today, an aging, post-industrial society reasserts the philosophical question, "Why?"

Society's demographic and philosophical changes suggest that education for transcendence should be included in education for life. In this position paper, the neglect of the pursuit of wisdom is cited, precedent for such education is grounded in American transcendentalism and the writing of early adult educators, and supportive movements within adult education are surveyed.

"AN EMERGING NATIONAL CRISIS: SCIENCE EDUCATION FOR OUT-OF-SCHOOL ADULTS"

J. Preston Prather, The University of Tennessee, Martin

Changing times place changing demands on society. In turn, society places changing demands on educators to provide the learning experiences suited to the changing times. Current societal expectations are reflected in the National Science Teachers Asssociation (NSTA) declaration that appropriate science education must be assured for all citizens. There is a growing need for additional science education among millions of out-of-school adult workers faced with occupational obsolescence. A decade ago, more than 40% of the nation's workers had factory jobs, but today less than 20% work in industry. The American Productivity Center predicted that this figure will decrease to about 10% by 1995. Those adults represent a large, highly motivated, potential body of students for science education. As the carriage trade's density was irrevocably tied to its ability to respond to changing societal expectations--to adapt its product to the public's self-perceived need for faster and more convenient transportation--so is education's destiny critically dependent upon its ability to adapt its product to these self-perceived science education needs of those out-of-school adults. This paper will examine the implications of that challenge.

10:00 a.m. - 10:50 a.m. COGNITIVE DEVELOPMENT/GIFTED (Discussion). . . . . Shannon

Presider: Judith A. Boser, The University of Tennessee, Knoxville

Presenters: "AN EXAMINATION OF STUDENT EXPECTATIONS AND ATTRIBUTED RESPONSIBILITY AS PREDICTORS OF ACHIEVEMENT"

Carol Scott Whelan, University of Southwestern Louisiana

Through the use of structural equation modeling, the author tested a theoretical model that explored the relationship between student achievement and a combination of student socioeconomic status (SES), expectations, and attributed responsibility. Test results and questionnaires were obtained from a sample of 76 public elementary schools in Louisiana from 5,289 third-grade students. The LISREL procedure was used for analysis of the data.

Early research on the effects of schooling found unequal academic achievement to be primarily a function of socioeconomic status. More recently, the major conclusion of effective schools research is that differences among schools do have an impact on student achievement (Madden, Lawson, and Sweet, 1976; Brookover and Lezotte, 1979; Rutter, 1979; Teddlie C., Falk W., and Falkowski, C., 1984). This study further investigated this area

by exploring the relations between student expectations, student attribution of responsibility, socioeconomic status, and student achievement.

Student SES was the best single predictor of achievement. The effect of student SES on expectations was significant but negative. In other words, low SES students tended to have high expectations for themselves. Although expectations were not significant predictors of achievement in the model, there was a significant relationship found between expectations and attribution of responsibility. Attribution of responsibility was a significant predictor of achievement in the student model. Goodness-of-fit indices indicated an acceptable fit of the model to the data with an index of .755.

"CORRELATIONS BETWEEN COGNITIVE DEVELOPMENTAL LEVEL AND MASTERY OF BASIC SKILLS OF SELECTED ALABAMA STUDENTS AT GRADES 3, 6, AND 9"

Sue B. Akers-Adams, Alabama State Department of Education, and Glennelle Halpin and LaVisa C. Wilson, Auburn University

For the purpose of this study it was hypothesized that with selected Alabama public school students there was a significant multivariate relationship between cognitive developmental level as measured by An Inventory of Piaget's Developmental Tasks (IPDT) and competency in reading, language, and mathematics as assessed by the Alabama Basic Competency Tests (BCT) at grades 3, 6, and 9.

Additionally, because multivariate correlations tend to fluctuate across testing situations, a secondary hypothesis was tested. It was hypothesized that there would be no differences in multivariate relationships between the sample used for the initial research and randomly-drawn subsamples used respectively for validation.

The sample was composed of 1,741 students from the third-, sixth-, and ninth-grade classes in two public school districts in Alabama. Both school systems included in every classroom male and female, black and white, English-speaking students.

"THE SCREENING OF RURAL, CULTURALLY-DIVERSE, GIFTED STUDENTS"

James E. Whorton and Frances A. Karnes, University of Southern Mississippi, and David L. Naylor, University of Central Arkansas

In recent years, educators have begun to voice a strong concern regarding so few gifted students from lower socioeconomic circumstances. In Mississippi, more than half of the public school students are from lower socioeconomic homes, but the majority of more than 14,500 identified intellectually-gifted students do not come from homes characterized as economically deprived. The purpose of this study was to determine the value or usefulness of selected group instruments in identifying potentially gifted students from lower socioeconomic backgrounds in rural areas.

The authors administered the Culture Fair Intelligence Test-Scale Two (CFIT) and the Standard Progressive Matrices (Raven) to 652 (441 white and 211 black) students in rural country elementary schools in grades three through eight. California Achievement Test (CAT) data were also obtained for each student. Data were analyzed using SPSSX, and indicated that the instrument used to measure intelligence may have contributed important information to the identification of culturally-diverse, rural, gifted youth. Although the CFIT is not approved for use by the State Department of Education, it identified more (32 vs 21) potentially-gifted youth than did the Raven. The CAT contributed little useful information in the screening process among the disadvantaged students.

10:00 a.m. - 10:50 a.m. ATTITUDES (Discussion) . . . . . Edinborough

Presider: Charles L. Faires, The University of Tennessee, Knoxville

Presenters: "ATTITUDES TOWARD MATHEMATICS AND COMPUTERS AS RELATED TO MATHEMATICS ACHIEVEMENT"

Sarah Pledger Crane, Vestavia (AL) Hills City Schools, and Gypsy Abbott Clayton and Mona Eason, The University of Alabama at Birmingham

Computer-assisted instruction in mathematics has become increasingly prevalent

in middle schools. Many educators have suggested that using computers results in more positive attitudes toward mathematics and toward computers and higher mathematics achievement. The purpose of this study was to examine differences in attitudes toward math, attitudes toward computers, and mathematics achievement in two groups of seventh-grade and eighth-grade "average" students. The experimental group participated in bi-weekly sessions of CAI in math class, and the control group had no exposure to CAI in math class.

One hundred thirteen students in the sample from two suburban middle schools were administered pretests in October, 1987 and posttests in May, 1988 to assess mathematics achievement, attitude toward mathematics, and attitudes toward computers. The instrument used to measure mathematics achievement was based on the objectives for the Ninth Grade Alabama Basic Competency Test. Other dependent variables were measured by the Attitude Toward Math scale and the computer Appreciation-Critic scale.

Results, using an analysis of variance procedure with repeated measures, indicated that neither group of students obtained significantly higher scores in mathematics achievement, attitudes toward mathematics, or attitudes toward computers. Implications for instruction of these findings will be discussed.

"TEACHER ATTITUDES TOWARD YOUNG CHILDREN FROM NON-TRADITIONAL FAMILIES"

Virginia D. Horns, Rhoda N. Chalker, and Patricia M. Garlikov,
The University of Alabama at Birmingham

The traditional family has long been considered the most desirable unit for rearing children; however, with the increasing rate of divorce in this country, the number of children being reared in single parent families has shown a dramatic increase. The rapid changes taking place within the family structure have led to questions concerning the relationship between family structure and the child's behavior in the classroom. The purpose of this study was to examine the differences that exist between preservice and inservice teachers' attitudes regarding social behavior of children of non-traditional families. The intact sample (N = 107) was drawn from education students from a large metropolitan city university. Subjects (undergraduates and graduates) were randomly assigned to three family groups (intact, divorced, and control). All subjects viewed a ten-minute videotape portraying a seven-year-old student during peer interaction in a classroom. After observing the tape, subjects completed two rating scales [Personality Traits and Perceived Behavior in School (Santrock & Tracy, 1978)]. A 2 X 3 MANOVA (SPSS Advanced System) was used to examine differences between preservice/inservice teachers and family groups and the dependent variables (PERSON and BEHAVE). Results indicated that teachers viewed students from non-traditional families differently from children of traditional famliies. No significant interaction was indicated, but the dependent variable, BEHAVE, was significantly affected by the perceived family group (intact, divorced or control) ($F = 7.7$, $p = .001$; Pillais = .13512, $p = .007$). Implications of these findings for teacher education will be discussed.

"THE RELATIONSHIP BETWEEN SCIENCE ATTITUDES AND SCIENCE FAIR PLACEMENT"

Vernon D. Gifford, Mississippi State University

To investigate the relationship between students' attitudes toward science and the extent to which they developed a successful science fair project, a science attitude scale was distributed to 478 participants in the 1987 Mississippi Region V Science Fair.

At the regional science fair, 229 students in classes three, four, and five either placed or received an honorable mention award (winners). These students were compared to the students who did not place or receive an honorable mention award (nonwinners) on each of the 20 items of Fishers Science Opinionnaire.

A significant difference was obtained when comparing the means of the two groups on three of the 20 items. Winners scored significantly higher on two items: (1) My friends enjoy doing science experiments, and (2) Most people like science classes. The winners scored significantly lower on the following item: I do not want to take any more science classes than I have to.

Seventeen of the attitudinal comparisons did not differentiate between winners

and nonwinners, but the three items that produced a significant difference indicated that the more positive a student's attitude was toward science, the greater the likelihood that he/she would win or place in a regional science fair.

11:00 a.m. - 11:50 a.m. TEACHER THINKING AND TEACHING THINKING (Symposium) . . .Aberdeen

Organizer: J. Jackson Barnette, Memphis State University

Presenters: "INSTRUMENTATION AND STUDIES OF THE IMQ"
Louis A. Franceschini, Memphis State University

"FIVE EPISTEMOLOGIES AND INQUIRY MODES"
E. Dean Butler, Memphis State University

"CORRELATIONS OF THE IMQ WITH OTHER PERSONALITY AND LEARNING STYLE INSTRUMENTS"
Thomas M. Hughes, Memphis State University

"STYLES OF INQUIRY AND THE NEW WAVE OF INTEREST IN CRITICAL THINKING"
Carlton H. Bowyer, Memphis State University

The waxing of the cognitive revolution in psychology has revived interest among educational researchers in the internal dynamics of teaching and learning and created an atmosphere of greater tolerance for alternative research methodologies. The growing body of research on teacher thinking is beneficiary to both of these trends. This body of research has enlarged our understandings of the complexity of teaching, of what teachers know, and of the methods of inquiry and reflection that teachers employ.

Under the aegis of teacher thinking and teaching thinking, a series of studies has taken teacher modes of inquiry as their primary focus. The concerted efforts of this program of research form the basis of this symposium.

The symposium will address four areas: philosophical and psychological assumptions relating to modes of inquiry, relevant psychometric instrumentation, empirical findings, and suggestions for practice and further research. Central to the discussions will be the Inquiry Mode Questionnaire (IMQ), an 18-item instrument developed by psychologists A. Harrison and R. Bramson (1982).

The philosophical infrastructure of the IMQ is founded on a typology developed by C. W. Churchman (1971), who asserts that five distinct modes of inquiry pervade Western culture. The modes of analyst and realist are associated with scientific thinking, originating with Liebnitzian rationalism and Lockean empiricism. Designed to address epistemological difficulties inherent in the scientific models are the perspectives of Kantian idealism and Hegelian synthesis. These assert the primacy of theory and interpretation and the workings of intuition and feeling. The final mode, pragmatic, is attributed to the American philosophers C. S. Pierce, W. James, J. Dewey, and E. A. Singer and viewed as a bridge between the others. W. H. Bruvold and N. Parlette (1983) maintain that the Inquiry Mode Questionnaire is a promising instrument whose validity and temporal stability is most satisfactory in group assessment situations. Our findings support their claim.

Consonant with the literature on elementary school teachers (S. A. Tuska and B. D. Wright, 1967; J. Harvey, 1967), findings reveal that elementary school teachers show a significant preference for concrete and inductive modes of inquiry, especially the realist style. Variations present in secondary level teachers' preferences of styles can be partly explained by inquiry modes associated with their academic majors. Research faculty and graduate research majors having quantitative orientations consistently prefer the analyst mode. Those with qualitative orientations, however, do not. Other measures of cognitive style and personality obtained on the subjects reflect moderate to strong relationships with scores yielded by the IMQ.

Results of the IMQ studies, along with the philosophical typology on which the instrument is based, have implications both for the training of teachers and the teaching of critical thinking. These implications will be explored, with special focus on instructional strategies in the teaching of research concepts and principles and in assessing curricula designed to foster critical thinking.

WEDNESDAY, NOVEMBER 9, 1988

11:00 a.m. - 11:50 a.m. INSERVICE EDUCATION (Discussion) . . . . . Bagpipe

Presider: Susan K. Kappelman, Jefferson Parish (LA) Schools

Presenters: "THE EAST MISSISSIPPI CENTER FOR EDUCATIONAL DEVELOPMENT: A MODEL FOR RURAL STAFF DEVELOPMENT"

Neil G. Amos and Gary Benton, Mississippi State University

The purpose of this study is to present materials, processes, and results of staff development activities that were developed and administered through the East Mississippi Center for Educational Development, an organization of 18 school systems established in 1986. This Center represents a marriage of public education, higher education, and private sector to provide activities and services to assist school districts in developing, implementing, and evaluating staff development programs. The Mississippi Education Reform Act of 1982 requires staff development as part of school accreditation. Materials and a summary of services with demographic characteristics and evaluations will be displayed and provided to interested researchers.

Data will be analyzed and presented in the following categories: (1) level of teaching (elementary or secondary), (2) years of teaching, (3) setting (rural or other), (4) administrator or teacher, and (5) districts with appointed or elected superintendents.

Questions and discussion will be encouraged at the end of the presentation.

"PILOT TESTING OF A NEEDS ASSESSMENT INSTRUMENT IN A MISSISSIPPI SCHOOL DISTRICT"

William F. Ferguson, University of Southern Mississippi; Gloria J. Haynes, Mendenhall (MS) Junior High School; and James T. Johnson, University of Southern Mississippi

The purpose of this study was to develop and pilot a needs assessment instrument to be used with teacher inservice programs. Via a content validity check, the 82 initially-considered items were reduced to 66. To these, teachers in a rural Mississippi district responded by indicating the degree that inservice should address each item listed and then the degree to which their inservice had addressed the items in the past academic year. Trained teachers administered the instruments at three elementary schools, two junior high schools, two high schools, and one vo-tech center. Differences in perceptions between the attention the district's inservice programs gave the items and what the teachers thought should have been given resulted in numerous "needs" being determined. Resulting differences were then used to classify the 66 items into three categories: priority needs, possible needs, and nonessential needs. Priority needs were then sorted into several subcategories, including professional image, student assistance, instructional improvement. The district indicates that results of the present study will impact the planning for next year's inservice programs. However, feedback from respondents and our trained administrators also indicated some slight clarifications are needed in six items and in one section of the oral directions.

"THE EFFECTIVENESS OF TEACHER-TO-TEACHER INSERVICE EDUCATION"

Anne G. Tishler and Suzanne Nichols, University of Montevallo

Inservice education workshops, in which successful teachers share "what works for me" with their peers, have received a positive endorsement from participants. In such workshops, participants pursue solutions to problems with teachers who have encountered and solved those same problems. While these workshops may be popular, how productive are they? Do teachers leave them with workable ideas? To assess their effectiveness, one regional inservice center conducted such workshops to determine specifically what ideas are taken back to the classroom and how succcessfully those ideas were implemented.

Questionnaires and follow-up interviews were used in the research. Seventy-three workshop participants responded to a questionnaire developed by inservice center staff in which they described ideas gleaned from the workshop. Follow-up interviews on idea implementation were conducted later at school sites with 15 randomly-selected respondents.

Data analysis indicated that the most popular ideas received in the workshops

were classroom management, time management in paper grading, and particular instructional techniques. A significant ($p < .05$) chi square, computed on grade differences, revealed that first-grade teachers had the greatest interest in classroom management ideas. Ideas implemented with greatest success were those with which concrete examples and materials were provided. Implications for inservice education will be discussed.

11:00 a.m. - 11:50 a.m. LEARNING (Discussion). . . . . Ruskins

Presider: Richard Keaster, University of New Orleans

Presenters: "MEASUREMENT OF TRUE MASTERY: IT'S ABOUT TIME"

Cathy L. Watkins, Auburn University, and Carl Binder, Precision Teaching and Management Systems, Inc.

Researchers and educators alike have emphasized accurate performance. The use of percent correct measures is indicative of the implicit assumption that it is possible to define mastery of skills or knowledge by specifying only an accuracy or quality criterion (e.g., 100%). However, it is not mere accuracy that distinguishes the performance of the master from that of the novice; it is the speed with which accurate responses are made or skills are executed. Thus, true mastery cannot be measured using conventional percent correct scales. Evidence gleaned from studies in verbal learning, perceptual motor learning, and human information processing support the conclusion that criterion-referenced instruction cannot ensure true mastery of skills or knowledge if instructional criteria do not incorporate the time dimension. True mastery is behavioral fluency (also known as automaticity) and involves both accuracy and speed of performance. Research findings have empirically related speed of responding to improved retention or maintenance of skills, to increased endurance or attention to task, and to transfer or application of new learning to more advanced and complex performance. In addition, educational research has demonstrated the relation between fluent perfomance and standardized achievement test scores.

"LISREL ANALYSIS OF AN HYPOTHESIZED CAUSAL MODEL FOR STUDENT ACHIEVEMENT"

Patricia A. Sellers and Ernest A. Rakow, Memphis State University

This paper presents the effects of student background (measured by composite Stanford Achievement Test, Kindergarten), teacher background (measured by years of teaching experience), and school background (measured by percentage of students on free lunch), on classroom context (measured by percentage of time in whole class instruction, as opposed to small group or individual instruction). These variables, along with class size (number of students per class), were in the model used to predict achievement in first grade (measured by composite Stanford Achievement Test). Although there have been numerous studies of determiners of achievement, the contribution made by this study is inclusion of a class size variable under control of the research project and the use of LISREL in attempting to further understand the interrelationships between the variables.

The data are from project STAR, involving 79 schools across the state of Tennessee in a class size study. The longitudinal achievement data analyzed for this paper are from students while in kindergarten and first grade.

The results of LISREL analysis showed that class size had a direct effect upon achievement and was independent of other variables, since it was the experimental variable. Additional direct effects were the student and teacher background variables.

"EFFECTS OF SELF-GENERATED EXAMPLES ON RETENTION OF CONCEPTS"

Jeffrey Gorrell, Southeastern Louisiana University, and Hunter Downing, University of New Orleans

The current study was devised to determine the short-term and long-term effectiveness of having students generate their own examples of selected concepts. Hypotheses were that Ss who generated their own examples of concepts would remember those concepts better than those for which they did not generate examples and better than Ss who did not generate examples. Subjects were 56 undergraduate students enrolled in a child

development course. From lists of social development and cognitive development concepts, the students found relevant examples using real-life children. Multiple-choice examinations constituted the short-term and long-term retention measures of the concepts.

A 2 (chosen vs. non-chosen items) x 2 (social vs. cognitive concepts) repeated measures analysis on each examination yielded significant main effects for performance on generated vs. non-generated items. Ss performed better on items they had included in their own list of generated examples than on items from the same pool of items (same category: Cognitive or Social). A similar repeated measures analysis found main effects for generated items over other items on the test. Ss performed better on items they have included in their own list of generated examples than on items from another pool of items (different category: Cognitive or Social).

11:00 a.m. - 11:50 a.m. INTELLIGENCE TESTING (Discussion). . . . . Shannon

Presider: Kathleen T. Campbell, University of New Orleans

Presenters: "SUBTEST SCATTER ON THE WAIS-R"

James E. McLean and Alan S. Kaufman, The University of Alabama, Tuscaloosa, and Cecil R. Reynolds, Texas A & M University

Data from the WAIS-R standardization sample (N = 1,880, ages 16-74) were analyzed to determine normal base rates of subtest scatter and to discover whether the amount of scatter is significantly related to various stratification variables. Three indexes of scatter were employed for the Verbal, Performance, and Full Scales: range (highest minus lowest scaled score), number of subtests deviating significantly from a person's own mean, and profile variability. ANOVAs conducted with the range statistic showed that scatter on all three WAIS-R IQ scales was significantly related to education level, that blacks had less scatter than whites on the Verbal and Full Scale, and that females had less scatter than males on the Verbal Scale. Base rate normative tables of subtests scatter were presented for five different levels of Full Scale IQ. Implications of these tables for assessment are discussed.

"CONSISTENCY OF WECHSLER IQ SCORES OF SECONDARY MENTALLY HANDICAPPED STUDENTS AND ITS EFFECT ON ELIGIBILITY RULINGS"

Stephen John Obringer and Sherry H. Decker, Mississippi State University

As a mentally handicapped student progresses from the elementary to the secondary level, he or she is typically reassessed with the Wechsler Adult Intelligence Scale-Revised (WAIS-R) versus the Wechsler Intelligence Scale for Children-Revised (WISC-R). A common assumption among educators and school psychologists is that consistency exists as handicapped students move from the younger version of the Wechsler Scale to the adult version.

The problem of this study was to investigate the changes in IQ scores of mentally handicapped students when reassessed with the WAIS-R and the resulting eligibility rulings for special education. A dependent t-test was utilized to compare the WISC-R and WAIS-R verbal, performance, and full scale IQs of 20 students currently being served in classes for the mentally handicapped in Monroe County, Mississippi. The .05 level of confidence was used to determine significance.

The results of this study revealed that a significant number of mentally handicapped students scored significantly higher in verbal and full scale IQ on the WAIS-R when compared to the previously administered WISC-R. This factor resulted in an excess of 10% of mentally handicapped students losing their special education eligibility ruling.

In summary, the lack of consistency between Wechsler forms results in significantly higher IQ scores and loss of services for mentally handicapped students. Perhaps alternative instruments such as the Kaufman Assessment Battery for Children or Stanford Binet Intelligence Scale-Revised might prove to be more consistent instruments for older-aged mentally handicapped students.

"A COMPARISON OF MIDDLE GRADES MALE AND FEMALE, APPALACHIAN STUDENT PROFILES BASED UPON THE SUBTEST SCALE SCORES OF THE WISC-R"

Larry C. Sexton, Eastern Kentucky University, and Arlene M. Cooper, University of Wisconsin, Stout

The purpose of this study was to investigate the similarities in the pattern of strengths and weaknesses between those students in the middle school who were evaluated and placed in special education programs and those students evaluated and not placed in special education programs. The two groups were compared on the basis of the 10 subtests from the Wechsler Intelligence Scale for Children-Revised (WISC-R). The sample consisted of 720 students in grades 5-8 located in six adjacent eastern Kentucky county school districts. A Spearman rank-ordered correlation coefficient was computed for each of the four comparisons.

The results indicated a strong positive correlation between males placed in special classes and those referred but not placed, $r = .86$, $p < .01$. Likewise, a strong positive correlation existed betweeen females placed in special classes and those referred but not placed, $r = .84$, $p < .01$. A strong, positive correlation was also found between male and female students placed in special education services, $r = .72$, $p < .01$. However, a significant relationship was not found between the profiles of males and females not placed in special education services, $r = .55$, $p > .05$. These results suggested that the two groups in the first three cases above differed more in degree than in kind.

11:00 a.m. - 11:50 a.m. EVALUATION (Discussion). . . . . Edinborough

Presider: Theresa M. Durapau, University of New Orleans

Presenters: "EVALUATING GROUP PERFORMANCE DEVELOPMENT OF A FORMULA FOR ASSESSING THE QUALITY OF A SCORE DISTRIBUTION"

Stephen W. Hebbler, The University of Alabama, Tuscaloosa

A formula was developed to assess the quality or "goodness" of a distribution of test scores or other performance measures. Much of the recent effective schools research has recommended the use of distributions in examining the performance of schools and school districts on various outcome measures. In most cases, the distribution is broken down into a small number of areas, and the number or percentage of student scores falling into each area is compared to the number or percentage that would be expected.

The method discussed in this paper assessed group performance using a "goodness" score based on the distribution of scores in the four quarters bounded by the 25th, 50th, and 75th percentile points. The percentages of scores falling into each quarter is calculated, then a formula is applied to those percentages to obtain a score. If the distribution matches the reference distribution exactly, the score is 150. The hypothetical range is 0 to 300 with a midpoint of 150. As the quality of the score distribution increases (higher percentages of scores in the higher quarters), the score also increases. A modification of the formula is discussed that adjusts the score when the distribution is bimodal.

"EVALUATION OF SIX SCHOOL EFFECTIVENESS PROGRAMS"

Dorren Rafael Schmitt, University of New Orleans

The purpose of this investigation was to evaluate school effectiveness programs at six schools. A secondary purpose was to provide principals with information to improve their school effectiveness programs.

The subjects were 3,006 students (CTBS records), 184 teachers, and 6 principals. The principals were interviewed and administered the Principal Questionnaire. The teachers were administered the Staff Assessment Questionnaire.

Data analysis procedures included means, frequencies, multivariate analysis of variances, canonical correlation as quantitative techniques, and trend analysis as the qualitative technique.

The results suggested several conclusions: (1) there was some disparity in

achievement between SES groups, but these differences were not so large as differences found in previous research; (2) older students achievement was less effected by SES; (3) a higher percentage of paid lunch students scored at or above grade equivalent than did free lunch students; (4) principals expressed high expectations for students' academic achievement but limited expectations for continuing education beyond high school; (5) principals expected teachers to impact students' achievement through teaching methods and attitudes; (6) DESPs were begun by initiators; (7) principals identified as managers ran schools with less variance between SES groups; and (8) managers tended to impact student achievement more than initiators.

"EVALUATION OF PROJECT LEAD IN TENNESSEE: AN INTRODUCTORY VIEW"

Charles M. Achilles, University of North Carolina at Greensboro, and M. Nan Lintz, The University of Tennessee, Knoxville

Each state has a Leadership in Education Administration project (LEAD) to improve school administration and evaluate the results. Only Tennessee chose an in-district change model, and, therefore, the evaluation focuses on school improvement. Local sites competed for projects that would become demonstrations. Evaluation was holistic and programmatic.

Descriptive data were collected for each of the 21 sites eventually selected. Process data traced each objective and procedures to attain the objective. A sample of teachers (n = 203) from each site completed the School Context Inventory (pre/post) and the "Involvement in School Activities" questionnaire; principals provided data on implementation. Implementation did follow the change-model approach of the original LEAD conceptualization.

Data provided an array of information about sites willing to change and improve. Short-term (five-month) interventions seemed to make little impact on school climate. Sites reported much interest in renewal efforts. The more people involved in the project, the more thorough was project implementation. Most sites voluntarily contributed considerable local funds to each project. The paper provides a complete tabulation and analysis of data collected for the 1987/1988 project.

12:00 p.m. - 12:50 p.m. MEDICAL (Discussion) . . . . . .Aberdeen

Presider: Stephanie F. Campo, University of New Orleans

Presenters: "MACY BIOPREP PROJECT: PRELIMINARY ANALYSIS OF STUDENT QUESTIONNAIRES"

Victoria Anne Johnson, Prince C. O. Chukabarah, and Brad Chissom, The University of Alabama, Tuscaloosa

The purpose of the study was to assess participants in the Macy BioPrep Project, a program designed to increase the number of medical professionals in rural areas. Students in the program were from rural high schools with poor socioeconomic conditions who were identified as having potential for success in medically related occupations. The program was conducted over the four years of the students' high school careers and emphasized enhanced instruction in science and mathematics. This study examined the attitude and behavior changes that occurred during the program in six areas: sources of information, school-related activities, family relationships, health care, careers, and rural living. Students from matched schools in nearby school systems served as a control group. Data were collected using before and after questionnaires given to both the BioPrep (N=101) and control (N=88) students. Although relatively few differences were found, results indicated that students who completed the program had a more positive perception of health-care professionals and rural living, watched fewer hours of television, and less frequently completed their school work than the control group. The overall impact of the program was not a clear advantage for the BioPrep group. More attention to the variables to be measured and the procedures employed to assess change need to be considered for future evaluation of the project.

"CHANGES IN PEER SUPPORT NETWORKS DURING THE UNDERGRADUATE MEDICAL SCHOOL EXPERIENCE"

Russell F. West, Ronald H. Baisden, and Michael L. Woodruff, East Tennessee State University

Research on social support during medical school has not focused on changes in peer support networks over time. The purpose of this study was to determine if changes occur in peer support networks during the four years of medical school. The sample consisted of 98 medical students who matriculated in the fall of 1983 and 1984 and were available to participate during the entire four years. Sixty-five students provided complete information. Students completed a Peer Network survey that identified peers who provided social, academic and personal support. Repeated measures ANOVA was utilized to assess change in the size and composition of networks. Correlations were used to assess relationships between size of the networks. Significant changes occurred in the size of networks. Social networks were largest during the freshmen year (X = 12.70) and lowest during the junior year (X = 5.88). Academic and personal networks showed statistically significant declines. The three networks exhibited greater differentiation over time. There was little interaction with peers about academic or professional matters during the final two clinical years. While some decline was expected, these results suggested that students are not utilizing one another as resources for learning during these two final years and point to potential problems in the socialization of medical students.

"EFFECTS OF IMMERSION ON CARDIOVASCULAR RESPONSES OF LEAN AND FAT SUBJECTS AT REST AND DURING EXERCISE"

Al-Said A. Haffor and Abner Harrison, Mississippi State University

The purpose of this study was to compare the effects of water immersion (WI) on cardiovascular responses of lean and fat subjects. Twelve subjects, six lean (fat% < 9) and six fat (fat% > 18), were studied at rest and during steady state exercise (35-40% VO_2 max) in randomly-ordered conditions; namely, (1) in air, (2) immersed in water at 35 C; (a) to the level of the hip and, (b) to the level of xiphoid (xip). Cardiac output (Q) was estimated by using Fick's equation. Mixed venous PCO_2 ($PvCO_2$) was measured by CO_2 - rebreathing equilibration technique. Mean Q ($\pm$ SD) rose from 5.43 $\pm$ 0.43 (air) to 7.25 $\pm$ 0.40 (xip) $L.min^{-1}$ in the fat group at rest. Inspection of the mean profiles corresponding to this increase indicated that an increase in the level of immersion (hip vs xip) results in significant ($p < 0.05$) increase in the average Q for the lean subjects. For the fat group, the average Q was significantly largest only when WI was to the level of xip. Heart rate dropped from 67 $\pm$ 3.36 (air) to 60 $\pm$ 4.13 (xip) and from 79 $\pm$ 3.73 (air) to 73 $\pm$ 4.10 (xip) for the lean and fat, respectively. The responses observed during exercise were similar to those at rest. The results of analysis of variance and covariance showed a significant interaction between WI and group membership, indicating that the effects of WI were significantly different between the two groups. It can be concluded that the central hypervolumic effects of WI depends, in part, on the immersed lean body mass.

"DENTAL STUDENTS' CLASS ATTITUDES: A FOUR-YEAR STUDY"

Diana M. Lancaster, James F. Gardiner, Elizabeth A. Strother, and Charles H. Boozer, Louisiana State University School of Dentistry

Students in a professional school develop class attitudes that may differ from their individual attitudes and from educational ideas of faculty. Students may be positively affected through the cooperation engendered by the shared attitudes. However, the shared attitudes may be detrimental to student learning. The group pressure may be toward average performance and unacceptable methods of acquiring information.

A survey of class attitudes was designed and administered to the Class of 1988 at Louisiana State University School of Dentistry during each of their four years of training. Percentages of agreement were calculated for each item, and chi square analysis was used to compare differences over the four years. Fifty-six students completed the initial administration, and 30 of the 50 seniors completed the last administration.

The results suggested that many attitudes remained stable over the four years; however, there were some significant changes. The students indicated that, as a class,

they became more prone to take short cuts, more likely to cheat on exams, and more likely to get by with as little effort as possible. As seniors, the students showed more positive attitudes than they had as juniors, which is consistent with the findings of previous research.

12:00 p.m. - 12:50 p.m. CONDUCTING A SURVEY: THE DOLLAR$ AND SENSE OF IT (Training) . . . . . Bagpipe

Trainer: Judith A. Boser, The University of Tennessee, Knoxville

Many of the books on survey research were published before the widespread availability of microcomputers and computerized random digit dialing procedures, and without sufficient consideration of the demand on resources (human, financial, and technical). The objective of this session is to make participants more aware of the alternatives that may be available to them (depending on their own particular situations) in conducting survey research and their relative cost, so that the participants can make cost-effective decisions in planning and conducting surveys.

This training session will present a cost-focused discussion of selected survey procedures based on experiences of the trainer. Topics will include type of survey (mail, telephone, personal interview), desirable (and undesirable) qualities of interviewers, timing, preliminary contacts, questionnaire design and format, preparation of printed materials, preparation of materials for mailing, data entry, mailing procedures, and organization/management of the survey.

This will be primarily a lecture presentation with opportunities for discussion. Experienced researchers who have found ways to maximize the resources available to them in conducting surveys are also welcome to share their experiences and knowledge with the group. Each participant will receive a bibliography on survey research.

12:00 p.m. - 12:50 p.m. MORAL DEVELOPMENT (Discussion) . . . . . Ruskins

Presenters: "ASSESSMENT OF MORAL DEVELOPMENT BY SELECTIVE RECALL PROCEDURES"

Joan L. Prentice, Daniel J. Mueller, Indiana University, and Andrzej L. Golab, Warsaw (Poland) University

The purpose of this review is to examine the potential of selective recall for assessing level of moral development. Currently, three instruments are primarily used in the assessment of moral development, all of them based on Kohlberg's model of moral reasoning. Each has well-established reliability, and each has convincing empirical evidence of validity with regard to some aspects of the domain of moral thinking. The literature on selective recall suggests that the selective recall phenomenon might call upon productive and evaluative processes that closely simulate moral reasoning in a natural situation. The selective recall literature will be integrated with the literature on assessment of moral reasoning. A selective recall procedure for assessing moral reasoning will be suggested.

"CHEATING IN HIGH SCHOOL: MORAL CONCERNS AND CONFLICTS FOR STUDENTS"

Rose McLaughlin, Steven M. Ross, and Jacqueline K. O'Dell, Memphis State University

Adolescents' abilities to make moral decisions regarding cheating are restricted by limited experiences and immature cognitive reasoning skills (Bushway & Nash, 1977; Fowler 1986; Schwab, 1980). Direct teaching of values and ethics may not deter students from cheating because many students have difficulty identifying specific behaviors that constitute cheating. Questions addressed in this study were: What are the specific behaviors students and faculty classify as cheating? How serious are those behaviors? How frequently are they practiced? Subjects were 130 randomly-selected urban high school students (grades 10-12) and 10 faculty-administrators. They reacted to a survey presenting 16 target behaviors and three vignettes describing both clear and ambiguous cheating incidents. Students believed that the most serious forms of cheating were related to examinations and copying others' work. Subjective distinctions between role behaviors as active initiator (copying work) versus passive participant (letting someone

copy) strongly influenced their identification and involvement with target behaviors. Relative to students, faculty-administrators reacted much more uniformly and conservatively. Younger students generally relied on conventional (rule-oriented) thinking (Kolhberg, 1975), and thus responded most like faculty. Older students were more flexible, but frequently reinterpreted rules concerning cheating to justify self-interests. Strategies for helping students to clarify characteristics and consequences of cheating will be discussed based on these results.

"AN EFFECT OF UNSTRUCTURED EVALUATION ON ACADEMIC INTEGRITY"

Robert Marsh, The University of Tennessee, Chattanooga

Does a take-home test affect academic integrity?

A large university class was randomized into halves. Group A students were randomly assigned a take-home test and told that they were on their honor to work at their leisure, but they could not refer in any way for assistance. Group B was given an in-class test. Unknown to both groups was that their tests were identical. One week later, a surprise test was given to the entire class, covering the same material and measuring achievement at three levels of cognitive learning. Attached to the surprise test was a questionnaire. Two questions asked the students to indicate, on a continuum of one through 10, how much they studied for their test and how much they would have studied had they been assigned the other kind of test.

There was no statistical difference between the two groups on the first test; however, Group B performed significantly better on the surprise test. On the questionnaire, Group A indicated that it would have studied more had it been assigned the in-class test. Group B indicated that it would have studied less if it had been given the take-home test.

An analysis suggested that some students in Group A probably cheated on their original test.

12:00 p.m. - 12:50 p.m. EXPECTATIONS, PERCEPTIONS, AND ANXIETIES OF PRESERVICE TEACHERS PRIOR TO AND FOLLOWING A FIELD EXPERIENCE (Symposium). . . . . Shannon

Organizer: Edward L. Shaw, Jr., The University of South Alabama

Presenters: "FEAR, ANXIETIES, AND CONCERNS OF THE UNIVERSITY OF SOUTH ALABAMA AND SOUTHEASTERN LOUISIANA UNIVERSITY PRE-TEACHERS FOLLOWING THE FIELD EXPERIENCE"
Edward L. Shaw, Jr., The University of South Alabama

"A COMPARISON OF THE UNIVERSITY OF SOUTH ALABAMA, SOUTHEASTERN LOUISIANA UNIVERSITY, AND THE UNIVERSITY OF MISSISSIPPI PRE-TEACHERS' FIELD EXPERIENCE-RELATED EXPECTATIONS AND ANXIETIES, 1986-88"
Joan C. Carson, The University of Mississippi

"EXPECTATIONS AND PERCEPTIONS OF THE FIELD EXPERIENCE OF SOUTHEASTERN LOUISIANA UNIVERSITY AND THE UNIVERSITY OF SOUTH ALABAMA PRE-TEACHERS FOLLOWING THE FIELD EXPERIENCE"
Dana G. Thames and M. Elizabeth Partridge, Southeastern Louisiana University

The purpose of this symposium is to report the investigation and comparison of expectations and anxieties of preservice teachers prior to and following a variety of field experience formats. Three separate research papers will be presented following a brief description of the various field experience formats used at the three universities. Two of the papers will describe and report the results of research related to the fears, anxieties, concerns, expectations and actual perceptions of pre-teachers following the field experience. The third paper will compare and contrast research results for pre-teachers at the three universities.

The studies have significance because expectations often influence both perceptions and actions. Additionally, with the programmatic changes that have occurred and continue to occur in many teacher training institutions, researchers' knowledge about

an effective format for field experiences can serve to reduce the anxiety level of pre-teachers prior to their actual field placement.

The studies were conducted beginning in the fall, 1986 and concluding in the spring, 1988. The sample of students was drawn from pre-teachers at the University of South Alabama, Southeastern Louisiana University, and the University of Mississippi. The students were enrolled in a math, reading, language arts, or science methods class. The sample was composed of juniors and seniors, predominantly female, and either elementary or special education majors. Students were enrolled in one of three various field experience formats.

The instruments were developed from an initial compilation of student responses to questions asked, prior to the inception of the research projects, about a variety of student expectations and anxieties concerning the upcoming field experience. Questionnaires were administered prior to and following the field experiences. Instruments contained questions in one of two sections with the first section relating to actual experiences and the second section related to respondents' anxieties and concerns.

Results indicated that more students had positive than negative experiences. Students generally viewed the field placement as a valuable learning experience and cited gains in management skills and other areas. Respondents also indicated various concerns and degrees of anxiety relative to acceptance in the field placement by the students and their cooperating teachers. Additional results about school services, atmosphere, cooperating teachers, administrators, and field experience formats will be presented, analyzed, and discussed. Implications of the research for teacher education will be presented and audience participation solicited.

12:00 p.m. - 12:50 p.m. MICROCOMPUTERS (Discussion). . . . . Edinborough

Presider: Mary Anne McMurray, University of New Orleans

Presenters: "COMPUTERS IN THE SECONDARY SCHOOL ART CURRICULUM: PAINTING A PICTURE OF EFFECTIVE TEACHING"

Bruce A. Crowe, Mississippi State University

Computer-assisted instruction has increasingly influenced the field of education since the 1960's. However, most secondary school art programs have not adopted this technology. If computers can be effectively used to achieve the goals of art instruction, why have educators not taken advantage of them?

This paper will, first, examine some of the reasons for the omission of computers in the majority of secondary art classrooms. Unfamiliarity with available technology and a concern for the loss of spontaneity in the creative process are among the factors that have caused art teachers to avoid using computer-assisted instruction.

Secondly, the paper will build a case for the inclusion of computers in the secondary school art curriculum. Uses of the computer as both a teaching tool and an art medium will be explored. As a teaching tool, the computer can be used to organize and present information to students. When utilized as an art medium, computer-generated images require a mastery of the same basic skills as other art media.

Once art educators become familiar with the computer's potential, they should discover many ways to use today's technology for more effective teaching.

"USING MICROCOMPUTER SIMULATIONS IN PRESERVICE TEACHER EDUCATION"

Nancy P. Hunt, California State University

Microcomputer simulations can serve as an intermediate step between discussing instructional principles in the college classroom and expecting students to demonstrate those principles in the internship classroom. Students have positive reactions to these simulations, but there have been no studies done to determine the transfer of knowledge to real classroom settings.

The purpose of this study was to determine if preservice elementary teachers would implement the instructional principles recommended in simulated classroom scenarios

into their teaching. Thus, this study dealt with the question of transfer from the computer-simulated classroom to teacher behavior in the real classroom.

The study's participants audiotaped themselves teaching before and after participating in a computerized lesson on verbal feedback. The lesson used simulated student-teacher interactions to provide practice identifying, evaluating, and applying feedback strategies.

Using regression procedures, the best predictor of posttreatment measures of the participants' feedback to student was found to be pretreatment measures of the same variable. No significant relationships were found among demographic data, computer anxiety, and perceptions of the workshop's usefulness and effectiveness.

Participants reacted enthusiastically to the lesson, indicating that the simulations were realistic and that they had learned new information that would improve their teaching. Further research is planned for studying the transfer from the simulation to the classroom.

"PERSPECTIVES ON IMPLEMENTATION OF LEARNER CONTROL IN CBI"

Nancy Higginbotham Wheat, Memphis State University

Research in the field of computer-based instruction has led to conflicting evidence of the efficacy of learner control over instruction. Typical implementations of learner control in CBI allow learners to proceed at their own pace, control the sequence of instruction, choose the amount of practice, or decide the level of difficulty attempted. Benefits of learner control have primarily been in the affective domain, with students spending more time on task, given control over their own instruction. Results have been mixed, however, in achievement when the learner is allowed control over the amount and sequence of instruction. Recent research studies allowing the learner to manipulate contextual variables, such as text density, have demonstrated learner control to be a viable option in CBI. The implication arises that those variables that do not manipulate the amount of content support are those over which the learner should be allowed control. This paper provides a model for classifying the various learner control variables and suggests recommendations for implementing these variables in CBI software and research.

"SIXTH GRADERS' EXPRESSED PREFERENCES FOR COMPUTER EXPERIENCES: GIRLS DO NOT NECESSARILY PREFER TO GATHER IN GAGGLES"

Carol Carter Reece, Memphis State University

This survey represents an attempt to elucidate experiences of boys and girls with computers, especially in elementary school just prior to their entry into junior high. Questions resulted from conflicting reports about gender and inequities as computers were introduced into schools. Responses were solicited from students who stand at the brink of age levels at which sex differences in computer attitudes and use are reported.

The sixth-grade class (n = 63) at one urban optional school was surveyed during their last month in elementary school. Concerning attitudes and experiences with computers, demographic questions and open-ended items about perceptions and feelings were presented in a one-page survey. Its purpose was to (1) inquire about home computer ownership, (2) assess students' perceptions about gender and computer interest/usage, (3) inquire whether boys and girls prefer to work alone or with someone, (4) discover what home factors are associated with girls who have home computers--whether someone serves as role model, and (5) inquire about parents' computer use. Students suggested ways to incorporate computer instruction in curricula.

It is significant that preliminary data analysis suggested no gender differences existed among these students. Results from a survey with the previous sixth-grade class at the school were compared.

1:00 p.m. - 1:50 p.m. RESEARCH METHODOLOGY (DISCUSSION). . . . . .Aberdeen

Presider: James Tadlock, Jackson (MS) Public Schools

WEDNESDAY, NOVEMBER 9, 1988

Presenters:

"BOOTSTRAP FACTOR ANALYSIS: DESCRIPTION AND AN ILLUSTRATIVE EXAMPLE"

Randall L. Scott, New Orleans, Lighthouse for the Blind; Bruce Thompson, Louisiana State University Medical Center; James David Sexton, University of New Orleans; and Thomas A. Wood, Auburn University

Factor analytic methods are notorious for capitalizing on sampling error both in factor extraction and in rotation. Various analytic methods are available to researchers who wish to estimate the degree of infleunce of sampling error on obtained results in both substantive and validity applications of factor analysis. These estimation procedures include invariance or cross-validation, jackknife, and bootstrap methods. The development of bootstrap methods is primarily due to Efron, but these applications have not yet been widely applied in the factor analytic case.

The present paper describes the development and application of a computer program, FACSTRAP, that can be used to estimate how stable factor structure is across changes in sample size and composition. For a given analysis, the program randomly selects several hundred different data samples using a bootstrap logic, and then the program uses these results to estimate the sampling stability of factor results.

In order to make the application of the method and of the program complete, analysis of a data set involving responses of 132 parents to a measure of family stress is described. In addition to explaining this analytic approach, the authors will make copies of the FACSTRAP program available to interested MSERA members.

"A MONTE CARLO COMPARISON OF LOG-LINEAR ANALYSIS AND DUMMY VARIABLE REGRESSION FOR 2 X 2 X 2 TABLES"

Mary J. McNelis and Ernest A. Rakow, Memphis State University

Research in the behavioral sciences often involves comparisons between two or more categorical variables. Then of particular interest is the response pattern to a dependent variable. This paper presents the results of investigating two alternative techniques for analyzing categorical data: log-linear analysis and regression analysis with dummy variables. The investigation was handled through Monte Carlo sampling procedures, followed by statistical analysis, leading to generation of empirical distributions for X^2 and F. The empirical distributions were compared to the theoretical distributions to determine which statistic provided the best fit in different situations.

Four different 2 X 2 X 2 contingency tables were analyzed varying the marginal probability split from equal to moderate to extreme. For each situation, a large and small sample were examined, making a total of eight tables and eight distributions for each statistic.

"COMMON METHODOLOGY MISTAKES IN EDUCATION DISSERTATIONS: DESCRIPTION AND SOME EXAMPLES"

Bruce Thompson, Louisiana State University Medical Center

Doctoral dissertations provide an important foundation for scholarly inquiry, for the dissertation process uniquely brings together the pooled expertise of several faculty and of a student working to demonstrate mastery acquired through years of diligent study. Furthermore, doctoral programs are often evaluated primarily against the criterion of the quality of the dissertations that program students produce. Thus, dissertation quality is important both to the discipline and to the continued accreditation of programs.

However, some dissertations do not reflect well on their authors or the programs in which they are written. This paper focuses on common mistakes that students might make in the data analysis reported in a dissertation. These mistakes include over-interpretation of statistical significance tests, the invalid use of covariance corrections, the use of OVA methods when more general methods might be preferable, and the use of numerous univariate tests resulting in inflated alpha levels and substantive distortions. For each error, the nature of the error is explained, and then some examples of each error are presented as illustrations.

"INVESTIGATION OF THE NATURE OF RELIABILITY"

Jeffrey Oescher, University of New Orleans

There is a great deal of information available regarding the concept of reliability. Unfortunately, much of it is offered on an abstract level and has little, if any, impact upon a classroom teacher's ability to construct reliable tests. The purpose of this research was to examine empirically the nature of reliability with respect to examples of statistically troublesome items so that a clearer, more concrete understanding of the concept would be possible.

The test used to investigate the problem was a 30-item, multiple-choice measurement exam. It was administered to 11 graduate students who were given directions for responding to the items and for commenting on their reasons for choosing particular alternatives. Response data were statistically analyzed, and students' comments were reviewed.

The reliability of the test was estimated by the KR20. The value of this coefficient changed from +0.01 to +0.57 on the basis of eight minor scoring changes that resulted from the review of the item analyses and students' comments.

Those changes that significantly increased the KR20 were then examined in an attempt to explain their nature. It was determined that the majority of the changes reflected the need to differentiate more clearly among alternatives. This information was then translated into specific item-writing recommendations.

1:00 p.m. - 1:50 p.m. COLLEGE STUDENTS (Discussion). . . . . Bagpipe

Presider: Daniel E. Cates, Indiana University

Presenters: "SELF-REPORTED STRESSORS OF COLLEGE FRESHMEN"

Carol L. Dickman and Irene M. Staik, University of Montevallo

Research has indicated that the freshman year of college is the most stressful one for the student. This study is based on the belief that a thorough comprehension of self-reported stressors of college freshmen is necessary for administrators to plan programs designed to help students to cope with their stressors. Effective coping reduces attrition and promotes better motivated college students.

The current study was conducted using qualitative methodology. All college freshmen (N = 439) at a small, public university in Alabama, enrolled in a required freshmen orientation course in the fall term, 1987, were asked to list and describe their five most severe stressors. They were also asked to rank order the stressors. They were also asked to rank order the stressors by severity. These qualitative data were analyzed, and 13 categories of students' stressors emerged. The most frequently reported stressor category was Academic Concerns, followed by Social Relationships (Non-dating), Finances, and Time Management. Results indicated that there were no appreciable differences in reported stressors between males and females, and only minor differences between off-campus and on-campus residents.

Knowledge of these self-reported stressors should enable the administrators of this university to tailor programs designed to respond to the specific needs of its students.

"A SURVEY OF UNDERGRADUATE LEARNING THEORY INSTRUCTION"

J. Linward Doak, Eastern Kentucky University

Both the old and new NCATE Standards require instruction in learning theory. It is evident that the understanding of the conditions under which learning takes place and the theories on which these assumptions are built is necessary in teacher preparation programs.

Ninety colleges and universities were selected from the membership of AACTE and sent a survey to obtain information on how they taught undergraduate learning theory. Forty-five responded, and 65% reported teaching theory as a part of a course. Sixty percent require laboratory experiences, and 70% stress theory and practice about the same.

The two books cited most often as a text were Biehler and Snowman's Psychology Applied to Teaching and Woolfolk's Educational Psychology. Many of the respondents provided course outlines and handouts that clearly indicated the quality of instruction students are receiving in this important area of the curriculum.

"DEVELOPMENTAL WRITING: A HOLISTIC APPROACH"

Nancy N. Crews, Peabody College of Vanderbilt University

The purpose of this study was to investigate the writing process of 15 students in a college developmental writing class through a holistic lense. Holistic writing allows and encourages students to write for meaning and from their own experiences.

The research design of this study was the interpretive, naturalistic paradigm. Data collection and analysis included various instructor and student documents.

Findings from this study were: (1) initially, students' writing did not exhibit an awareness of their audience, (2) students did exhibit high motivation to continue writing when provided with the opportunity to select their own topics, and (3) students responded better to large group conferences than to small group conferences.

Conclusions drawn from this study were that students who are initially reluctant to write become more adept in the writing process when they write from their own interests and experiences, students are more likely to value the editing process when they have something of personal value to say to their audience, and whole-class discussion of individual students' writing pieces is seen as beneficial since it allows other students the opportunity to understand how their own writing might be improved.

1:00 p.m. - 1:50 p.m. AUXILIARY STAFFING FOR AN EFFECTIVE MIDDLE SCHOOL (Training) . . . . . Ruskins

Trainer: G. Wayne Swezig, Eastern Kentucky University

Research implications for effective middle school staff recruitment, placement, and development have been reviewed in several recent publications. Middle schools throughout the country are in rapid stages of development and now number over 4,000 in the United States.

Overall staffing of the middle school has been termed an operation of the highest priority. In view of such an important consideration, it is important to analyze school needs from the perspectives of recruiting, selecting, and placing highly diversified auxiliary personnel, such as volunteer parents, teacher aides, clerical aides, student volunteers, and other important categories of support staff, that complement and assist the professional staff.

Emphasis will be focused toward developing practical guidelines for the selection/placement of auxiliary staff and staff development activities.

Auxiliary staff requirements within a typical middle school will be reviewed. A brief review of current research and professional writings regarding staff development activities in the middle school will be provided. Questions for consideration will be discussed. Several practical handouts will be provided for session participants.

Persons in attendance will be provided copies of research findings and professional writings regarding auxiliary staff development considerations within the middle school.

1:00 p.m. - 1:50 p.m. ACTION RESEARCH: AN APPROACH FOR EDUCATIONAL RENEWAL (Symposium). . . . . Shannon

Organizer: Herbert M. Handley, Mississippi State University

Presenters: "EFFECT OF ACTION RESEARCH PROJECTS ON ATTITUDES OF TEACHERS TOWARD RESEARCH"
Raymond Paden, Superintendent of Education, Chickasaw County (MS) Schools

"HOMEWORK VS. NO HOMEWORK IN MATHEMATICS AT THE THIRD-GRADE LEVEL"
Betsy Collums, Houlka (MS) Elementary School

"ALGEBRA I PROBLEM SOLVING USING DATA ORGANIZATION TECHNIQUES VS. EQUATION WRITING ALGORITHMS"
William Scott, Houlka (MS) High School

"VOCABULARY ACHIEVEMENT IN BIOLOGY"
Donna Vosen, Houlka (MS) High School

"MANIPULATIVE VS. TRADITIONAL TEACHING OF FRACTIONS TO FOURTH GRADERS"
Lisa Washington, Houlka (MS) Elementary School

"CORRELATION OF MOTOR SKILL DEVELOPMENT AND ACHIEVEMENT IN MATHEMATICS AMONG KINDERGARTEN CHILDREN"
Bryan Watkins, Houlka (MS) Elementary School

As research on learning grows, the crevice between researcher and practitioner continues to split. Simmons (1985), Huling (1982), Oja (1984), and Coladarci (1982) all point to the differences in language, interest, and research in the teaching process. Each used some type of action research in a collaborative type situation to bridge this gap between researcher and practitioner. Each states their belief that participation in a collaborative action research project resulted in professional growth of teachers and/or a positive attitude toward research.

This study examined teachers' attitudes toward research in two ways. First, the change in teachers' attitudes toward research after they had been trained and completed an action research project was studied. Second, the difference in teachers' attitudes toward research of the participants was compared to teachers who did not take part in the project.

In August, 1988, 36 teachers were given an attitudinal scale to measure their attitudes toward research. Then, between September and March, 19 of these teachers received training in research methods, decided on a research problem, completed a study, and reported their findings. At this time the attitudinal scale was again administered to the 36 teachers. The t-value between the means of the experimental group on pre- and posttests was significant at the .01 level. The f-value for the adjusted means of the experimental and control group was significant at the .001 level. These data showed that participation in action research resulted in teachers showing significant gains in attitudes toward research that was significantly higher than those of the control group.

What happens in teachers' classrooms has always and will continue to determine the level of performance of students. Teachers do not have the time to perform new research with the necessary controls to make valid conclusions, but they must become more proficient in understanding, interpreting, and replicating research in their own classrooms. For instruction to improve, they must be able to tell when they make a difference, internalize these changes, and share their results with their peers.

The symposium will consist of a presentation describing participation of 18 regular teachers in action research studies and the outcomes of the project. Five teachers will present their results and react to audience inquiry concerning their participation in the study. Teachers will discuss the organization and results of their specific studies, generalized changes in curriculum results from the studies, and changes in their attitudes after participation in the study.

1:00 p.m. - 1:50 p.m. SPECIAL EDUCATION (Discussion) . . . . . Edinborough

Presider: Gloria Dianne Richardson, Mississippi State University

Presenters: "INTIMATIONS REGARDING SPECIAL EDUCATION PRACTICE FROM RESEARCH REGARDING DEAF-BLIND STUDENTS"

Norma E. Tedder and B. J. Maxson, Mississippi State University

Educators struggle with the concepts of the most appropriate education in the least restrictive environment, particularly regarding low incidence groups such as deaf-blind students. Decision making is hampered by lack of empirical information.

The purpose of this exploratory research was to describe the teachers, their credentials, and some of the approaches they use when teaching types of tasks to deaf-blind students. A further goal was to describe some of the characteristics of deaf-blind students and their programs.

A national sample of teachers of deaf-blind students was surveyed regarding the issues indicated above. Results were organized into frequency tables and a matrix of preferred teaching approaches for certain learning tasks.

Although the response rate was small, severely limiting generalizability of the study, several issues were raised that suggest topics for future research in special education. Seventy-five percent of the respondents teach deaf-blind students in combination with other students. Forty-three percent of the respondents have master's degrees, 46% have 2 - 5 certifications, although 40% have been teaching less than 5 years. Communication methods and teaching techniques appear to be at variance with what might be expected for this population of students.

Preliminary findings suggested that educational groupings that include deaf-blind students might not relate to the needs of these students. Further, teachers might not be adequately prepared for the situations in which they teach.

"GRADUATION AND MINIMUM COMPETENCY TRENDS FOR SECONDARY SPECIAL EDUCATION STUDENTS IN THE PUBLIC SCHOOLS OF ARKANSAS"

Joe E. Walthall, University of Central Arkansas

American education has come under increased scrutiny during the decade of the eighties. The National Commission on excellence report, for example, confirmed the views of educational critics; that is, our schools were inferior. The 1983 Newsweek report, Saving Our Schools: A Scathing Report Demands Better Teachers and Tougher Standards, again emphasized the public's spiraling loss of confidence in public education. These reports, along with public concern and heightened awareness of due process provisions, have contributed to the momentum towards increased standards and accountability. The purpose of this study was to determine the effects of these trends on the secondary special education student in the public schools of Arkansas.

A study was undertaken to survey each of the 330 school districts in the state of Arkansas on program modifications, graduation requirements, and graduation documentation for secondary special education students. Of the 330 districts contacted, 276 (83.6%) responded to the survey. The information was then sorted into various categories in order to identify trends common to geographical region, average daily membership, among others. Results indicated that there are significant differences among districts within Arkansas about educational programming and policies affecting graduation of special education students within those districts.

"THE EDUCATION OF CHEMICALLY ILL CHILDREN"

Barbara Grayson Love, University of Mississippi Medical Center

Evidence for inadequate educational planning for chronically ill children and adolescents is found throughout the literature on pediatric chronicity. Although the majority possess normal intelligence, many of these children fall significantly behind their peers.

Dramatic medical advances are prolonging survival for infants, children, and adolescents who would have died several years ago. Few school districts are prepared to handle the increasing number of chronically ill students able to participate in educational programs over a longer period of time.

Factors associated with illness, treatment, or adjustment that may negatively affect academic performance of some chronically ill students include neurological impairment, limited alertness or stamina, medication, side effects, chronic pain, social or emotional difficulties, intellectual impairment, and excessive school absences. Educational factors to be addressed include continuity of programming despite frequent or occasional absences, physical access to safe schools and classrooms, supportive services, specialized instruction, coordination of services within the districts and with medical personnel, and training and support of school personnel.

Implications for local school districts are the need for policy development, employment of personnel to coordinate and provide specialized services, and inservice training of all school personnel involved with chronically ill children.

"ASSESSMENT OF ATTENTION DEFICIT DISORDER IN SCHOOL AGE CHILDREN"

M. Eve Horneker, Arkansas State University

Attention deficit disorder (ADD) is a relatively new term used to describe an old disorder. Some of the terms used to describe what is now known as ADD were minimal brain damage, minimal brain dysfunction, and hyperkinetic syndrome. In recent years, students who have had academic problems, but for whom intellectual inability has been eliminated as the cause, are now being considered as having ADD. As a result, ADD is now the new catch word used to "label" these children having academic difficulties. However, a problem arises when identifying children as having ADD. Research indicates that instruments used to diagnose ADD vary considerably. Some of the instruments used are an observation checklist, a Central-Incidental Task, a Diagnostic Interview of Children and Adolescents Questionnaire, and a test battery. Each of these instruments has certain weaknesses in making an accurate diagnosis of ADD. This is an indication that no one instrument is adequate enough by itself to make such a diagnosis, but should be used in conjunction with other instruments to assess a child as having ADD.

2:00 p.m. - 2:50 p.m. TESTS (Discussion) . . . . . .Aberdeen

Presider: Patrick Ferguson, The University of Alabama

Presenters: "THE EFFECTS OF TRAIT ANXIETY ON STATE ANXIETY AND PERCEPTION OF TEST DIFFICULTY FOR UNDERGRADUATES ADMINISTERED HIGH AND LOW DIFFICULTY TESTS"

L. Quinn Head, Jacksonville State University, and Carol Bugg Knight, Wadley (AL) High School

This study investigated trait anxiety (stable anxiety resulting from personality characteristics predisposing an individual to anxiety) and test difficulty on state anxiety (transitory anxiety resulting from situations regarded as difficult or dangerous) and test difficulty perception of 25 undergraduates. The Test Anxiety Inventory assessed trait anxiety, an Educational Psychology Recognition Test assessed test difficulty, a modified version of the State-Trait Anxiety Inventory assessed state anxiety, and the Test Perception Inventory assessed perception of exam difficulty. The correlated t-test and analysis of variance design were used in analyzing the data. Results indicated that (1) higher trait anxiety students experienced higher state anxiety than did their low trait anxiety peers, regardless of test difficulty, $p < .05$, (2) perceptual differences of test difficulty for the trait anxiety groups were not significant for high or low difficulty test, $p > .05$, and (3) perceptual difference of test difficulty between the high and low difficulty tests were significant for the high and low trait anxiety groups, $p < .05$, but not for the medium trait anxiety group, $p > .05$.

"A DESCRIPTIVE COMPARISON OF TEST ITEM STATISTICS FROM ITEMS UTILIZED IN AN ITEM PILOT, A FORM PILOT, AND LIVE ADMINISTRATIONS OF THE ALABAMA HIGH SCHOOL GRADUATION EXAMINATION: THE 1988 UPDATE"

D. Joyce Steele, The University of Alabama, Tuscaloosa

The problem or purpose of this study was to validate the test development procedure for the Alabama High School Graduation Examination (AHSGE) by comparing the difficulty level and the discrimination index of common test items on the initial item pilot, on the test booklet form pilot, and on the 10 live administrations.

The summary of methods included a descriptive comparison of statistics for pilot data, two form pilots, and 10 live administrations of the AHSGE. The difficulty level and discrimination index were computed for the items on each pilot and live administration. This study describes the continuing trend for the total test and each competency.

The results of the study demonstrated the stability of the difficulty level and

discrimination index of common items from pilot administration to the live administrations. This validation of stability was essential because the test development procedure and the pass score were based on pilot data.

The conclusions of the study were that the difficulty level and discrimination index were consistent from pilot administration to the live administration of the AHSGE. As in earlier studies, the results of this study supported the validation of the test development procedure used for the AHSGE.

"AN INVESTIGATION OF THE EMPIRICAL AND RATIONAL STRUCTURE OF A LARGE-SCALE, CRITERION-REFERENCED TESTING PROGRAM"

David T. Morse, Jane Bruner Woodruff, and Linda W. Morse, Mississippi State University

Test development advice in the literature advocates using item and test specifications. Little research has been reported examining the impact of item specifications as an aid in test construction; the usual rationale is to enhance content validity. The purpose of this study was to examine the relationship between the rationale structure of criterion-referenced achievement tests, indicated by item specifications, and the empirical structure, indicated by factor analysis.

Stratified random samples representing 16% of the population were drawn for statewide reading achievement tests at grades 3, 5, 8, and 11. The factor structure was judged by examining item loadings of at least .30 on factors with eigenvalues of 1.0 or more. Since some of the skills measured were multi-part skills, the congruence as a function of skill scope was also checked.

Results indicated that (1) the match of empirical and rational structure was best for grade 3 and became systematically worse for grades 5, 8, and 11, (2) there was no significant difference in matches for single- and multi-part skills, and (3) the overall match of empirical and rational structures was satisfactory, 31 of 40 skills (78%) matching perfectly.

The utility of item specifications may extend beyond that of simply a device for content validity; as evaluated in this study, their use can help the test developer control the empirical structure of the test.

"THE RELIABILITY OF THE CUNY SCORED WRITING PLACEMENT EXAMINATION IN A STATEWIDE ASSESSMENT PROGRAM"

Robert A. Kaiser, Debra Litowitz, Todd M. Davis, and Rebecca S. Argall, Memphis State University

The problem of underpreparation for college level writing is widespread. As part of a broad assessment of academic preparedness for college, all 20 institutions under the Tennessee State Board of Regents System (SBR) make use of the CUNY holistic scoring system for writing samples collected from incoming freshmen.

The two purposes of this study were to assess the consistency of test administration conditions and to examine the interrater reliabilities for paper readers. To assess test administration practices, a questionnaire was developed and sent to the Developmental Studies directors at each SBR institution. Interrater reliability was assessed by having a standard packet of 10 writing samples scored by all paper readers who actually scored examinations in the fall, 1987. Reliabilities were calculated for each institution using Cohen's Kappa statistic.

Analysis suggested important differences in the qualifications of readers, method of compensation, and adherence to accepted holistic scoring procedures. Institutional reliabilities ranged from a low of .26 to a high of .91. Fewer than half of the SBR institutions had reliabilities greater than the minimum acceptable Kappa of .60.

These findings suggested that, as a best practice, a combination of direct and indirect measures of students' writing might be necessary to ensure both a valid and reliable assessment of writing ability.

WEDNESDAY, NOVEMBER 9, 1988

2:00 p.m. - 2:50 p.m. WHAT'S HAPPENING IN FEDERALLY FUNDED EDUCATIONAL RESEARCH AND DEVELOPMENT? (Training). . . . . Bagpipe

Trainer: Doris L. Redfield, United States Department of Education, OERI

The general purpose of this "training" session is to provide information and address issues surrounding federally funded Research and Development (R & D) activities. The presenter's specific objectives are to (1) describe the role of the Office of Research (OR) within the United States Department of Education's Office of Educational Research and Improvement (OERI), (2) specify existing Research and Development Centers and activities funded by OERI, (3) outline the processes used by OERI to develop Requests for Proposals (RFPs), (4) describe the processes involved in competing and awarding national R&D Centers, and (5) discuss the implications of recent legislative actions, controversies, and trends for national level R&D efforts.

In sum, the intent of the session is to provide a forum for exchanging information and for raising and addressing issues concerning federally funded educational research. Activities will include a didactic presentation of information, the distribution and discussion of informational materials, and opportunities for audience participation in discussion.

2:00 p.m. - 2:50 p.m. TEACHER EDUCATION (Discussion) . . . . . Ruskins

Presider: Bruce A. Crowe, Mississippi State University

Presenters:

"INITIATIVES, OR RESPONSES TO THE THREAT OF EXTINCTION?"

Gail C. McClay, Rhodes College

Each teacher education institution within the state has the exclusive responsibility for preparing teachers in that state. Each teacher education institution, whether a college or university, private or public, should be held accountable for teacher preparation, and, to that end, it should take initiative and assert its authority.

Teacher education institutions have not been held accountable for teacher preparation. They have responded to threats of extinction and have defended those responses as initiatives. They have surrendered their authority to govern and upgrade their programs.

It is imperative that preservice teachers understand what teaching and learning are all about. To that extent, pedagogical coursework to supplement work in an academic discipline is essential.

The initiatives from the large state teacher education institutions to improve their teacher preparation programs and to upgrade the profession have been little more than frantic responses and desperate attempts to protect their property rights. The expansion of the academic and pedagogical components of their teacher education programs is their solution.

A solution? No. An option? Maybe. A solution, or a more viable option, lies in the liberal arts and sciences colleges, especially those with high admission standards. Four-year undergraduate programs should continue to produce quality teachers.

"PROPOSED REFORMS IN EDUCATION: VIEWS OF STATE TEACHERS OF THE YEAR"

Jane A. Page and Fred M. Page, Jr., Georgia Southern College

A primary factor in the effectiveness of educational reforms proposed in the last five years will be the endorsement (or lack of it) from individuals in the profession. The problem of this study was to determine the level of support for reform proposals by some of the nation's most capable teachers.

Subjects were individuals that had been selected by State Departments of Education as State Teachers of the Year during the past 12 years. Instruments designed by the researchers to ascertain views of recent reform proposals were mailed to these 685 subjects. There were 302 usable instruments returned by the deadline. Frequency

statistics and analysis of variance were used to analyze data.

Areas receiving strongest support included those related to higher teacher salaries, more state and federal funding, and utilization of mentor teachers. Reforms viewed as undesirable included abolition of the undergraduate education major, public education for four-year-olds, and increased use of standardized tests. There were 42 significant differences between subjects grouped on the basis of background variables. The views of these teachers, who have been recognized for their effectiveness and professional leaderships, should serve as a valuable source for individuals in decision-making positions.

"THE RELATIONSHIP BETWEEN PPST AND SAT SCORES: IMPLICATIONS FOR TEACHER EDUCATION SELECTION POLICIES"

Ann M. Neely, Pamela K. Schulte, and Anita M. Micich, Vanderbilt University

Universities and colleges throughout the nation use many criteria to select undergraduates for admission into their teacher education programs. Perhaps the two most widely used measures are the Scholastic Aptitude Test (SAT) and the American College Test (ACT). Additionally, the Pre-Professional Skills Test (PPST) is currently required in 11 states for admission to these programs. Recently, research has been conducted correlating the performance of student on the ACT and the PPST (Aksamit, et al., 1987). This presentation will focus on a study investigating the relationship between the SAT and the PPST.

The study will address the following questions: (1) Is there a direct correlation between performance on the SAT and performance on the PPST? (2) What are the similarities and differences in the purposes, objectives, and uses of these tests? (3) How do the results compare with the results of the study using the ACT as a comparison to the PPST? (4) Could the SAT replace the PPST by providing the necessary and pertinent information for identification of qualified teacher applicants?

The implications of this study are relevant to administrators and teacher educators who make decisions concerning admission to undergraduate programs in general, and, in particular, to teacher education programs.

"A SURVEY OF ART TEACHER PREPARATION PROGRAMS AS COMPARED WITH THE NATIONAL ART EDUCATION ASSOCIATION STANDARDS"

Turner Rogers and Richard Brogdon, University of South Alabama

The National Art Education Association (NAEA) recommends standards for art teacher preparation programs; this study attempted to ascertain how closely the curricula of selected programs approximated those standards.

Questionnaires developed from the NAEA's Standards for Art Teacher Preparation Programs (1979) were mailed to each of NAEA's higher education division's 1,057 members; 225 were returned representing 45 states and 7 Canadian provinces. Of these, 195 were useable. Subjects reported a range of program requirements. For example, as minimum credit hours, NAEA standards recommend 21-30 semester hours in foundational art, 9-15 in art history, 6-9 in advanced, and a total of 51 semester hours; only 46 programs equaled or exceeded the standards. Reports indicated that 75% of the programs failed to meet the minimum number of semester hours in the teaching field. Further, NAEA standards recommend such areas as teaching health hazards, having qualified faculty, and requiring laboratory experiences. While these additional requirements were present in many cases, most programs were not adequate.

Only 17% of the programs responding satisfied standards in all respects. As education reform in the United States strives to improve education, art teacher preparation programs need to meet the recommended standards of the recognized professional association.

2:00 p.m. - 2:50 p.m. AN EVALUATION OF A STATE-FUNDED TRUANCY AND DROPOUT PREVENTION, INTERVENTION, AND REMEDIATION PROGRAM (Symposium). . . . Shannon

Organizer: Kathleen A. Bolland, The University of Alabama, Tuscaloosa

WEDNESDAY, NOVEMBER 9, 1988

Presenters:

"TRUANTS AND DROPOUTS: A REVIEW OF THE LITERATURE"
Carol S. Schmitt and Kathleen A. Bolland, The University of Alabama, Tuscaloosa

"AN EVALUATION DESIGN FOR A TRUANCY AND DROPOUT PREVENTION, INTERVENTION, AND REMEDIATION PROGRAM"
Kathleen A. Bolland and James E. McLean, The University of Alabama, Tuscaloosa

"COLLECTING INFORMATION ABOUT TRUANCY AND DROPOUT PREVENTION PROJECTS: IN THE FIELD, ON THE PHONE, AND THROUGH THE MAIL"
Elizabeth T. Powers, The University of Alabama, Tuscaloosa, and Julia S. Rogers, The University of Montevallo

"THE EFFECTIVENESS OF A STATE-FUNDED TRUANCY AND DROPOUT PREVENTION PROGRAM: DATA-BASED CONCLUSIONS AND RECOMMENDATIONS"
Kathleen A. Bolland and James E. McLean, The University of Alabama, Tuscaloosa

A current "hot topic" is the number of students who do not complete their education. One state program addresses the problem by funding projects to reduce the incidence of students leaving school and/or to increase truant students' attendance. The effectiveness of the program's third year was evaluated. This symposium presents a literature review, study design, data collection and analysis procedures, and results and recommendations.

The readily available literature on the dropout problem includes books, journal articles, published reports, and conference papers. The data reported include dropout rates ranging from 14% to 30% overall, reaching above 40% for certain populations, for example, inner-city and Hispanic youth. Many authors decry the lack of a standard definition of dropout and of standard methods of calculating dropout rates. The literature describes characteristics of youth who drop out or are at risk of dropping out. Descriptions of successful or potentially successful interventions are rare.

The State Board of Education and the project evaluation staff jointly identified evaluation questions, focusing on identification of effective projects and on commonalities among effective projects and among ineffective projects. The data were collected through site visits, telephone interviews, questionnaires, and analyisis of existing data. The data were analyzed through content analysis of qualitative data, descriptive analyses of the quantitative data, and canonical correlation of the student-level data.

The site visits included observations and semi-structured interviews with administrators, staff, and staff of cooperating agencies enabling the collection of detailed descriptions difficult to obtain through questionnaires and brief interviews. Telephone interviews were conducted with the administrators of the projects not visited. Some yielded straightforward descriptions of project activities and outcomes, but many, when the interviewer and interviewee established an instant rapport, provided more complete information, including subtleties uncovered through probing and clarification. The mailed survey questionnaire was sent to each project administrator (return rate = 94%). Items were derived from the literature and the FY86 projects' self-reports. All projects were requested to submit student-level data, including demographic/risk variables, services, and outcomes. Approximately one-third of the projects complied. Others sent aggregate data.

The competitive nature of the funding is one weakness of this program. Interagency cooperation and committed, caring staff are among the strengths of the various projects. There is a strong suggestion that truancy prevention projects are most effective for young students and that even first graders benefit from attendance awareness programs. The individual attention and small class sizes seem to make a big difference for many secondary school students in alternative education programs. One promising service is an alternative middle school program, where "average" students can receive an eighth-grade completion diploma that allows them to enter high school.

Notably lacking in the literature are descriptions of successful and promising interventions and discussions of what makes or breaks a truancy/dropout prevention project. This issue is addressed, and the audience is encouraged to discuss how identified strategies could be applied in other settings and used in other states.

WEDNESDAY, NOVEMBER 9, 1988

2:00 p.m. - 2:50 p.m. ADMINISTRATION/SUPERVISION (Discussion). . . . . Edinborough

Presider: Frances C. Fowler, University of Tennessee

Presenters: "LEGAL IMPLICATIONS OF THE USE OF FORCE BY TEACHERS AND SCHOOL ADMINISTRATORS IN DEFENDING THEMSELVES AND OTHERS AGAINST THREATENED PHYSICAL HARM"

Donald H. Henderson, University of Alabama at Birmingham

Every year, an increasing number of school personnel and pupils are being physically attacked while at school. When such injuries occur, many school officials do not know what measures the law allows or expects them to take. A comprehensive review of relevant court cases revealed that the law of torts and the criminal law of the United States extend to an individual a "privilege" to defend from physical assault themselves and those to whom a duty of care is owed.

However, the American judiciary emphasizes that "self-defense" and "defense of others" are delicate "privileges" that are always subjected to strict judicial scrutiny. In rendering decisions in such cases, the courts customarily consider whether (1) there was an apparent necessity to use such force, (2) the extent of the force was reasonable under the circumstances, (3) the teacher stopped using physical force against the plaintiff when the threat of physical harm had ended, and (4) the defendant had time to avoid the physical confrontation by enlisting the aid of others.

The research also shows that, in cases where there are completely contradictory versions of what transpired, the courts tend to believe the testimony of the battered child over that of an unscathed teacher.

"PARTICIPATORY MANAGEMENT: A LOOK AT SELECTED SCHOOLS"

Ernest L. Bentley, Jr., East Tennessee State University

How do school leaders define participatory management and share decision-making opportunities? The problem in this study was to determine what building level school leaders define as participatory management and how they currently share decision-making opportunities.

An interview process was developed by a team of five investigators. The instrument consisted of seven interest areas, including how staff are involved in decision making, types of problems staff identify for group consideration, individual definitions for participatory management, and preparation of staff for participatory management. A group of 21 administrators comprised the sample. Each operated a school improvement plan as part of a statewide leadership development effort. Interviews were typically about 40 minutes and were accomplished by trained interviewers. Later, site visits and observations were used to verify reported information.

Everyone reported using participatory management. Site observations could not verify this. In a self-selected, innovative pool of building level administrators, there is reported commitment to participative management. Some administrators could list few examples of participatory management at work.

Incorporation of a conscious knowledge base and experiential activities will expand participatory management as an effective tool.

"SOCIAL-TECHNICAL THEORY AND ELEMENTARY SCHOOLS, AN EXPLORATORY STUDY"

Denzil E. Keckley, University of North Alabama

This paper explores the potential usefulness of Perrow's social-technical approach to describing/diagnosing schools, which is based on the nature of organizational technology and proposed relationships among social, structural, and personnel dimensions of organizations. According to Perrow, technology can be classified based on the degree of task variability and task analyzability.

Data from 23 elementary schools were used to classify schools as organizations according to task dimensions of Perrow's model. Non-parametric statistical tests were

used to identify the relationships among tasks, categories, and variables. Findings indicated that elementary schools can be classified consistent with this theory.

Additional findings regarding teachers' influence and informal coordination were not consistent with that proposed by the model. However, a marked degree of association was found among personnel attributes (job involvement, meaningfulness of work, intrinsic motivation, and satisfaction) when categorized by technology.

This project demonstrates the potential usefulness of a social-technical approach to classifying schools. Discussion centers on the relationship of these findings to other approaches to describing the nature of schools, its potential for guiding additional research, and its usefulness in addressing current concerns in education relative to the nature of the teaching task.

"THE TEACHING OF ADMINISTRATION: AN ANALYSIS OF INTRODUCTORY TEXTS"

W. Hal Knight, East Tennessee State University

The study of administration, like most disciplines, is replete with variations; i.e., specific adaptations for unique areas of study. In the last decade, there have been a growing number of attempts to employ a multidisciplinary approach to the study of administration.

The purpose of this study was to analyze the introductory professional literature in the fields of business administration, public administration, health administration, and education administration to identify common patterns and principles of administration. Faculty ratings determined the 10 dominant introductory texts in their respective fields. The functional categories of planning, organization change, decision making, leadership, communication, motivation, and organizational climate were utilized for the examination. Within each category, theories, concepts, theorists, and researchers were examined. Subsequent analysis was conducted to determine the degree of overlap that was present between fields.

Overall, it can be concluded that there is considerable overlap between the fields with regard to theories and concepts that are presented. Less overlap exists with regard to the relative attention given to specific theorists and researchers, certain theorists emphasized in one area being totally absent from others. Recommendations are made regarding core content for multidiciplinary introductory courses in the study of administration.

3:00 p.m. - 3:50 p.m. SPECIAL EDUCATION (Discussion) . . . . . .Aberdeen

Presider: JoAnn Seymour, Cumberland College

Presenters: "TEACHING READING SKILLS TO LEARNING-DISABLED FOURTH-TO-SIXTH GRADERS THROUGH CONTENT AREAS"

Esther K. Leung, Eastern Kentucky University

Students with disabilities in reading generallly experience increased academic and emotional strains in the upper elementary grades as demands in reading competencies accelerate. While conventional practices in Special Education seldom eradicate reading deficiencies and related academic problems, concerned educators are exploring alternatives to enhance learning-disabled students' educational success. The purpose of this study was to investigate the effectiveness of a compensatory approach: teaching reading skills to learning-disabled fourth-to-sixth graders through content areas, which may provide the needed assistance to students at a crucial stage of schooling. Efficacies were measured in reading, self-concept, and content areas.

Four Special Education teachers in three school districts participated, with 10 control and 12 experimental pupils completing the research. The Spache Diagnostic Reading Scales and a Self-Perception Inventory were administered by the researcher as pretests in September, 1987 and as posttests in April-May, 1988. Letter grades for content areas were recorded in June, 1988. The Kruskal-Wallis one-way analysis of variance was performed on reading and self-perception gain scores, while achievement in content areas was analyzed with the Signed Rank Test. Experimental subjects performed better in all research

variables, suggesting the experimental approach as a viable alternative for teaching upper elementary learning-disabled students.

"LEARNING EXPERIENCES FOR MENTALLY HANDICAPPED STUDENTS IN A SCHOOL STORE"

Carol David, University of Louisville

For the past three school years, a major supermarket has supplied a small grocery store in one of Jefferson County's elementary schools. This particular school has a kindergarten, grades one through five, and special education classes. Kapp (1981), Burkett and Whitfield (1985) and Ortiz and Kourilsky (1985) contended that school stores provide regular education students with opportunities to learn economics and mathematics.

The learning goals for the mentally handicapped students are somewhat different from those of regular education students. For these students it is important to learn the way to spend money, to make choices when shopping, and to behave appropriately in a public place. As Quinley (1986) and Ellington (1976) noted, school stores can also be adapted to the educational needs of handicapped students.

This particular store is part of a schoolwide active learning process that emphasizes that students are knowledge workers. Like the regular education students, the mildly and moderately handicapped students earn salaries represented in monetary values for attendance, behavior, homework completion, and classwork completion. The severely/profoundly handicapped students, however, earn their salaries based upon their Individualized Education Plan goals.

Since these students are unable to be tested in mathematics and economics with standardized instruments, this study will involve the qualitative methods of observations of these students shopping in the school store, interviews with teachers, and surveys of parents. All sources agree on the store's benefits for the mentally handicapped students. One special education teacher commented that the store provides an opportunity for the regular education students to see that their handicapped peers do what they do.

"ANALYSIS OF SECONDARY L.D. STUDENTS' IEPS"

Tom E. C. Smith and Carol Dowdy, University of Alabama at Birmingham, and Mary Cooper, Fayetteville (AR) Public School District

As a result of the passage of Public Law 94-142 more than ten years ago, all school-age children with disabilities are provided an appropriate education in the least restrictive environment. Recently, emphasis at the federal level has shifted from traditional special education programs to transition programs that facilitate the movement of disabled young adults from schools to the community. To accomplish this, curricula and programs to assist students in making this change have been developed. The purpose of the current research was to determine the extent transition goals, and objectives are addressed in individual educational programs (IEPs) of secondary special education students.

Following the completion of the 1987-1988 school year, copies of IEPs for 36 students in high school special education programs were collected and analyzed to determine the nature of their content. Learning disabilities was the primary handicapping condition for 24 of the students, with the remaining 12 labeled mentally retarded. Analysis of the goals and objectives written in the IEPs indicated that limited attention was paid to transition areas. In fact, only three students labeled learning disabled had any goals or objectives related to transition. Transition-related goals and objectives were found for 10 of the 12 MR students. The unfortunate conclusion is that professionals are still expressing limited concerns about transition for students classified as learning disabled. With many follow-up studies of LD students showing that they have major adjustment problems following public school years, more attention must be focused on transition needs. The presentation will provide an analysis of all types of goals and objectives found in the 36 IEPs.

3:00 p.m. - 3:50 p.m. READING (Discussion) . . . . . Bagpipe

WEDNESDAY, NOVEMBER 9, 1988

Presider: Betsy B. Ward, Mississippi State University

Presenters: "READING COMPREHENSION AND EDUCATIONALLY RELATED CHARACTERISTICS OF U.S. NAVY RECRUITS: A TWELVE-MONTH PROFILE FROM JUNE, 1987, TO MAY, 1988"

Harry L. Bowman, Memphis State University, and Paul L. Jones and Emily J. Webb, Chief of Naval Technical Training

The purpose of the study was to describe U.S. Navy recruits on reading comprehension and educationally related variables as well as to compare selected sub-populations during a 12-month period from June, 1987, to May, 1988. Data on 76,177 recruits were obtained for educational background, aptitude, and reading comprehension. With respect to education, about 91% of the recruits were high school graduates with a mean of approximately 12 years of schooling for all recruits. The measure of academic aptitude revealed that the recruits with reading grade level (RGL) scores below 6.0, the criterion for mandatory referral to Academic Remedial Training, scored about 20 percentile points lower on the average than recruits with RGL scores above 6.0. The reading comprehension scores had a median and a mean near the 12th grade and 10th grade, respectively. Variability by month of entry into the Navy was evident when distributions of recruits were compared on high school graduation status, RGL categories, and classifications of recruits on high school graduation status and RGL criterion (above or below 6.0 RGL). The results of the study suggest a continuing need to provide academic remedial training programs for recruits but indicate variable resource requirements at different times during any 12-month time period.

"EFFECT OF CONFIGURATION ON CLOZE TEST SCORES"

Shirley M. Byrne, Ronald Schmelzer, and Robert L. Byrne, Eastern Kentucky University

The purpose of this study was to investigate the effect of external configuration on the identification of words. Two cloze tests were constructed following the standard deletion of every fifth word. One form of the test contained a line of 12 spaces in length in place of the deleted word. The other form of the test had configuration blocks traced around the words before they were deleted. Both forms had the same 517 words, and the same 50 words were deleted. The subjects were 32 third-grade and 42 fourth-grade children. Every other child was given either the line or block form of the cloze test.

The 35 children who completed the blocks form had a mean correct score of 32.29. The children who completed the lines form had a mean score of 26.67. The difference between the means of 5.62 was significant beyond the .008 level.

Analysis by grade level indicated that there was no significant difference at the .01 level between the two forms for the grade three subjects, but there was a significant difference between the forms for the grade four subjects.

"A COMPARISON OF THE MENTAL PROCESSES OF ADVANCED AND REMEDIAL HIGH SCHOOL READERS WHILE READING A SHORT STORY"

Ruth P. Eavenson, University of Chicago

This study investigated the differences in mental activities of advanced and remedial high school students reading a short story. Subjects were asked to read and verbalize everything they did in coming to an understanding of the story. Transcriptions were made of the readings, and the researcher segmented the protocols into distinct mental activities, or "moves." Moves were coded by terms descriptive of the mental operations. A profile of each reader's activities was developed, and generalizations were made concerning differences between the groups.

Differences included the fact that the remedial readers conceived of their tasks of reading the story as complete when they had read the final sentence, although they had unanswered questions and did not understand the story, whereas advanced readers viewed the task as complete when they had verbalized a formal principle (Crane, 1953) for the story that resolved problematic issues. Also, differences were noted between the groups in the numbers and nature of SELECT, CONNECT, GENERALIZE, and MONITOR moves made.

Implications for teaching include emphasizing process skills necessary for understanding and stressing the notion that a reading of a literary work is complete only when a formal principle is constructed that resolves problems.

3:00 p.m. - 3:50 p.m. EVALUATION (Discussion). . . . . Ruskins

Presider: G. Wayne Swezig, Eastern Kentucky University

Presenters: "PRACTICAL IMPLICATIONS OF CHANGES IN TESTING FOR THE TEACHING OF CLASSROOM MEASUREMENT AND EVALUATION"

Jim R. Flaitz, The University of Southwestern Louisiana

What should a classroom teacher be taught about constructing and using classroom tests? While most modern introductory measurements texts have adopted an atheoretical approach to most topics, measurement theory is to be found lurking a small distance beneath the surface. Unfortunately, much of what is presented in modern measurement texts, and, consequently, much of what is learned by teachers is predicated on classical test theory, which works far better for constructing and using standardized achievement tests than it does for constructing and using classroom tests. By their nature, classroom tests are and should be like criterion-referenced tests (or perhaps more properly domain-referenced tests). It is argued in this paper that modern measurement texts are largely failing to address such topics as test reliability, test score analysis, and grading practices from a frame of reference that properly acknowledges the preservice teacher's primary concern, which is constructing and using good classroom tests. Suggestions are offered for developing alternative approaches of these topics.

"USING THE GAP REDUCTION MODEL TO EVALUATE A SUCCESSFUL BILINGUAL/ESL PROGRAM"

Melvin E. Franks, Mississippi Band of Choctaw Indians

The primary goal of the Choctaw Bilingual/ESL Program has been to achieve greater proficiency with English in a manner that does not devalue Choctaw language and culture, with the operating principal that English proficiency is a necessary competency for successful living among a majority society whose language is not Choctaw.

This goal has been accomplished by the program in a variety of ways. First, the program operates in a traditional "pull-out" mode with students coming to an ESL resource room and with ESL instruction provided in the regular classroom. ESL instruction has been organized around a set of rational activities coordinated with a curriculum developed specifically for this population.

To identify specific program effects independent of the overall educational process is problematic. Tallmadge, Lam, and Gamel have proposed using a "Gap Reduction Model," which proclaims the project to be effective if the distance between the scores of students in the treatment group compared to their expected scores on national norm test is reduced.

The program operated in traditional Bureau of Indian Affairs schools from 1983-1988. The program served an average of 148 students in kindergarten through third grade yearly.

All students took the California Achievement Test and the Language Assessment Scale in the spring and the fall of each year. Preliminary results indicated that the students in the program made greater gain in all three batteries of the CAT than the students not receiving ESL instruction. Further, program students reached English language fluency sooner than the students not in the program.

The conclusion is that the particular instructional model used in the program has been sufficiently effective to recommend its adoption by the entire school system. The gap reduction method of program evaluation has proven to be an efficient and effective method of evaluating supplemental educational programs.

"A LONGITUDINAL STUDY OF PUPIL DISCIPLINE IN AN URBAN SCHOOL DISTRICT: A MODEL FOR MAKING DECISIONS"

Robert Fortenberry, Henriette Allen, and James Tadlock, Jackson (MS) Public Schools

This study of disciplinary practices in an urban school district grew out of concern to maintain a safe and orderly learning environment and at the same time to comply with all the legal, ethical, and pratical imperatives attendant to pupil discipline. The purpose of the study was to provide information to decision makers that could be used as the basis for changing district policy and practice.

Each discipline offense and the action taken was recorded and tabulated for 56 schools in the district of 32,000 pupils. Findings included: (1) the type and frequency of disciplinary action varied considerably by school and by division; (2) 91% of the population have no offenses; 6% have one offense and 3% have two or more offenses; (3) offense rates are much higher in grades 7-10; (4) most offenses involve fighting, disrupting or insubordination; and (5) cost to the district in lost ADA (due to suspensions) is about $50,000.00 annually.

Policy/procedure changes made as the result of the study included (a) a special alternative school for certain offenders, (b) in-school suspensions for some pupils, and (c) behavior management training for teachers and administrators.

"THREE-YEAR LONGITUDINAL STUDY OF CLASS SIZE"

Helen P. Bain, Tennessee State University; Charles M. Achilles, University of North Carolina at Greensboro; and Mary Witherspoon-Parks, Metro-Nashville Schools

Among strategies to help students increase basic skills scores has been class-size reduction, an expensive alternative. Results of the many class-size studies are inconclusive, especially since few are longitudinal. In fall, 1984, Tennessee State University (TSU) initiated a three-year longitudinal class-size study (1:15 vs. 1:25).

"Experimental" (X) and "control" (O) schools served similar neighborhoods. A "blind" control group (Ob) was matched with (X) on five variables. Pupil (CAT, Stanford) test scores, self-concept, attendance and behavior, and teacher perceptions were analyzed with ANOVA among groups at pre and post; ANOVA for pre-to-post.

In grade one, important and statistically significant pupil achievement gains favored (X), and especially low SES pupils. By grade 2, achievement gains were less pronounced; by grade 3, achievement evened out.

There were no differences among groups in attendance. Although not statistically significant, self-concept continually improved in (X) but showed no consistent pattern in (O) and (Ob). Behavior favored (X) in grade one and became significantly better ($p < .05$) in grades two and three.

In the first year, pupils got "up to speed" in smaller classes, but, over time, gains did not continually increase. The groups evened out by grade 3, but small-class pupils maintained what they gained.

3:00 p.m. - 3:50 p.m. GRADUATE STUDENTS DISCUSS ISSUES IN RESEARCH METHODS (Symposium). . . . . Shannon

Organizer: Theresa M. Durapau, University of New Orleans

Presenters: "CORRECT USES OF STATISTICAL SIGNIFICANCE TESTING"
Richard D. Keaster, University of New Orleans

"ALTERNATIVE LOGICS FOR ESTIMATING WHETHER RESULTS WILL GENERALIZE"
Stephanie F. Campo, University of New Orleans

"DANGERS IN USING COVARIANCE PROCEDURES"
Kathleen T. Campbell, University of New Orleans

"BENEFITS FROM USING PLANNED COMPARISONS RATHER THAN POST HOC TESTS"
Theresa M. Durapau, University of New Orleans

In this symposium, several graduate students discuss selected issues in research methodology. Each paper states a position regarding what is believed to be a preferred research practice and presents the case for the position and against alternative positions. Each paper also includes an analysis of a small hypothetical data set in order to illustrate the implications of failure to employ the recommended practices.

The first paper, Correct Uses of Statistical Significance Testing, explores the history of how significance testing was developed. Arguments for and against use of significance testing decision rules are then presented. It is suggested that some researchers misinterpret or overinterpret significance tests.

The second paper is Alternative Logics for Estimating Whether Results Will Generalize. Significance testing does not inform the researcher regarding the important issue of whether results will generalize. Three logics for evaluating the sampling specificity of results are briefly reviewed: (a) Tukey's jackknife procedure, (b) Efron's bootstrap logic, and (c) cross-validation or invariance evaluation procedures. A small data set is employed to illustrate how the cross-validation procedure is performed.

The third paper will present Dangers in Using Covariance Procedures. Covariance procedures are employed in only about 3% of published research, but some of these applications use covariance adjustment when the methods are least appropriate and seriously distort interpretations of results. Vital assumptions of covariance methods, such as covariate reliability and homogeneity of regression, are explored. A data set is employed to illustrate the critical nature of some of the method's assumptions.

The fourth paper, Benefits from Using Planned Comparisons Rather than Post Hoc Tests, suggests that planned comparisons are generally better than post hoc tests, for two reasons. First, planned tests have more power against Type II error. Second, planned tests force the researcher to be more thoughtful when conducting research. A data set is presented to illustrate how planned tests can result in significant effects that post hoc tests are unable to detect.

3:00 p.m. - 3:50 p.m. EARLY CHILDHOOD (Discussion) . . . . . Edinborough

Presider: Avis J. Ruthven, University of Mississippi Medical Center

Presenters: "A STUDY OF CRITERIA THAT TEACHERS AND LIBRARIANS PERCEIVE AS IMPORTANT IN SELECTING CHILDREN'S LITERATURE BOOKS IN GRADES K-3 AND THE EXTENT TO WHICH SCHOOL LIBRARY COLLECTIONS MEET THOSE CRITERIA"

Rosie Brantley, Jackson (MS) Public Schools, and Georgia Napier, Jackson State University

This study was undertaken to determine the importance teachers and librarians attach to the criteria described in the literature as critical in the selecting of literature books for children and to examine the extent to which literature books in school library collections meet those criteria. Teachers in grades K-3 and six elementary school librarians were surveyed to determine their opinions on the importance of various criteria in the selecting of books for eight categories of literature; namely, mother goose, picture books, folktales, modern fantasy, realistic fiction, historical fiction, information books, and poetry. Teachers' and librarians' opinions were also sought on the importance of 11 literary elements in the selecting of children's literature books in general.

Analysis of the data indicated that both teachers and librarians considered each of the criteria examined to be of above average importance and that a significant majority of the books in the school libraries contained recommended criteria to an above-average level. Some major differences were observed. Librarians were observed to attach significantly greater importance to criteria under informational books and literary elements.

Overall, the results of the study suggested the need to actively involve teachers and librarians in the selecting of children's literature books for use in

schools. The results also indicated the need for teachers to be familiarized with the importance of informational books in teaching children and the standardized criteria for selecting books for this category of literature.

"EVALUATING SOCIAL COMPETENCY DEVELOPMENT OF KINDERGARTEN STUDENTS"

Gloria C. Correro and Esther M. Howard, Mississippi State University

Research indicates that there is a persistent and significant relationship between a student's concept of self and subsequent academic performance. Consequently, when goals were established for the Misisssippi kindergarten program, the development of social competency was included as an integral part of the program. The purpose of this study was to determine if program goals were being accomplished.

The research question was: Did students who participated in the 1987-88 Mississippi kindergarten program and who were identified as students having an "at risk" view of themselves as learners change to an "adequate" or "high" view of themselves by the end of the school years? Twenty of Mississippi's school districts were randomly selected to administer the Kindergarten Inventory of Developing Social Competency (KIDSc) in September, 1987 and April, 1988. The sample included approximately 5,000 students. Chi square values were computed to determine whether or not a significant shift in frequencies occurred from low levels of self-concept to adequate and high levels of self-concept.

The 1987-88 program results showed that significantly fewer students left the kindergarten with inadequate feelings of self than those who started the year with inadequate feelings. The results also revealed that most of the kindergarten children will enter first grade with strong positive feelings of self in relation to school tasks. While the results of the evaluation program year were quite positive, attention must be directed to the children who were reported to have "at risk" views of themselves as learners.

"COMPARISON OF BLACK AND WHITE MIDDLE-CLASS CHILDREN'S PERFORMANCE ON ABILITY TESTS"

Marlene C. Anthony and George W. Etheridge, Memphis State University

There is a large body of literature comparing low-income black and white children's performance on ability tests. However, there is a dearth of literature comparing black and white middle-class children's performance on ability tests. Thus, the purpose of this study was to examine the relationship between black and white middle-class children's performance on three ability measures.

The sample for this study was matched-pairs of black and white middle-class children (ages 2.5 to 6.5 years) who attended the same mid-south child development center during 1987-1988. The children were matched-paired on the following variables: age, race, gender, family income, and family education. Children who received special services were not included in the study. The ability measures used were the McCarthy Scales of Children's Abilities, the Kaufman Assessment Battery for Children, and the Bracken Basic Concept Scale. Each child was individually tested by a trained examiner. One test was administered per testing period.

Preliminary analysis of the data indicated no differences between the scores of black and white children on the tests. T-tests for non-independent samples will be performed to statistically confirm that no differences exist.

4:00 p.m. - 4:50 p.m. TESTS (Discussion) . . . . . .Aberdeen

Presider: Sam Lucas, Memphis State University

Presenters: "RELIABILITY AND CURRENT VALIDITY OF A MEASURE OF PROBLEM-SOLVING SKILL IN BIOLOGY"

Mary Anne McMurray, Paul Beisenherz, and Bruce Thompson, University of New Orleans

Educators have recently recognized the importance of critical thinking skills. These skills become more important as we increasingly become an information-based culture. Several measures are available to measure general critical thinking abilities, but fewer measures are available to measure skills within specific disciplines.

A measure of critical thinking or problem-solving skills in the content area of biology was developed. The paper presents two studies of the measurement integrity of the instrument. Study I involved 72 subjects enrolled in biology in a small, private university. Various item statistics were computed, and the alpha reliability coefficient was found to be 0.83. Subjects in Study II were 47 students enrolled in biology in either of two universities. Item analyses were again performed, and the alpha reliability of the 52 items was found to be 0.83 again. Concurrent validity coefficients were also computed in this study with measures such as ACT scores and scores on the Watson-Glaser Critical Appraisal. The results suggest that the measure is reasonably reliable and valid.

"DEVELOPMENT, VALIDATION, AND USE OF AN ITEM BANK FOR POLICE PROMOTION EXAMINATIONS"

John M. Enger, Arkansas State University

Many communities in Arkansas have set up civil service commissions to establish and maintain fair promotion procedures within police departments. This report discusses the development, validation, and utilization of a test item bank for police promotion examinations.

Three levels of promotion examinations are used through the ranks from patrolman to sergeant to lieutenant to captain. Patrolmen are tested on four content areas: Criminal Code, Traffic Laws, Criminal Investigation Procedures, and Departmental Policy and Procedures. Sergeants are also tested on Principles of Supervision, and lieutenants are tested on Administrative Techniques. For each of the six content areas, multiple-choice items were constructed, each keyed to a specific reference.

To assess the appropriateness of the test items, department captains were asked to read the items and write "yes" or "no" to indicate whether they deemed the item appropriate for the police promotion exam. Any item that was not unanimously approved by the captains was discarded.

A 424-item bank was constructed and validated for use. Tests for each level of promotion were developed and administered. The average score on tests for promotion to sergeant was 69.1% of the items answered correctly with 38.5% passing; for lieutenant, an average 63.3% correct with 33.3% passing; and for captain, a 62.0% average with 40% passing. There are many unforeseen factors that arise in high-stakes competency testing such as this.

"TEST-RETEST RELIABILITY OF THE ADULT CAREER CONCERNS INVENTORY"

Joan Ralph, University of South Alabama, and Glennelle Halpin and Gerald Halpin, Auburn University

To measure career maturity/adaptability in adulthood, Super and others developed the Adult Career Concerns Inventory (ACCI). Focused on the Planfulness and Exploration factors of Super's theoretical model of vocational career maturity, it assesses Exploration, Establishment, Maintenance, Disengagement, and Career Change stages.

Internal consistency reliability has been reported for this new instrument. However, as noted by Super in the research manual for the ACCI, no stability (test-retest) coefficients have been reported. Therefore, this study was designed to investigate the stability of the ACCI. Specifically looked at was the test-retest reliability of this instrument, which was administered in spring, 1985, and administered again in December, 1987, to 56 graduate nursing students.

Resulting Pearson correlation coefficients were: Exploration -- $r = .48$; Establishment -- $r = .48$; Maintenance -- $r = .50$; Disengagement -- $r = .55$; Career Change -- $r = .44$. All correlations were significant, $p < .001$.

In contrast to internal consistency reliability coefficients for the ACCI (r's = .80's to .90's), these stability coefficients are low. However, such a decline is consistent with Super's theory. As individuals go through different career stages over

time, their career concerns change. Thus, test-retest reliability coefficients should, predictably, be lower than internal consistency reliabilty coefficients.

4:00 p.m. - 4:50 p.m. THE ACCEPTANCE OF AUTHORITY BY TEACHERS OF DIRECTIVES ISSUED BY ADMINISTRATORS (Symposium) . . . . . Bagpipe

Organizer: Joe M. Blackbourn, Mississippi State University

Presenters: "EFFECTS OF STUDENT TEACHING EXPERIENCE ON ATTITUDES TOWARD ADMINISTRATOR DIRECTIVES"
Sam T. Wilkes and E. C. O'Neal, Mississippi State University

"THE RELATIONSHIP OF TEACHERS' PERCEPTIONS OF THE DEGREE OF BUREAUCRATIZATION AND PROFESSIONALIZATION AND THEIR COMPLIANCE WITH ADMINISTRATIVE DIRECTIVES"
Jane Bruner Woodruff, Mississippi State University

"A COMPARISON BETWEEN THE ACCEPTANCE OF AUTHORITY BY SECONDARY TEACHERS IN A STATE WHERE CONTRACTS ARE NEGOTIATED AND IN A STATE WHERE CONTRACTS ARE NOT NEGOTIATED"
Cynthia Ann Ward, University of Southern Mississippi

"DIFFERENCES IN THE ACCEPTANCE OF AUTHORITY BY TEACHERS IN STRIKING AND NON-STRIKING DISTRICTS IN SELECTED SECONDARY SCHOOLS IN MISSISSIPPI"
Walter Sam Bounds, Clinton (MS) High School

"THE RELATIONSHIP BETWEEN TEACHERS' ACCEPTANCE OF AUTHORITY AND THEIR LOCAL-COSMOPOLITAN ORIENTATION"
Merre Thigpen Dorman, Starkville (MS) Public Schools

"OVERVIEW"

The purpose of this symposium will be to present research findings relative to the acceptance of authority by teachers. Directives issued by administrators will be examined in light of the extent to which they are accepted in a variety of situations. Measurement of acceptance of authority was with the Zones of Indifference Instrument.

"EFFECTS OF STUDENT TEACHING EXPERIENCE ON ATTITUDES TOWARD ADMINISTRATOR DIRECTIVES"

Problems relative to working with administrators are the major issues cited by beginning teachers who drop out of the teaching profession early. There is a need to study these problems that are causing conflicts with beginning teachers and principals. The findings of this study are an attempt to further explain the cause of conflict.

"THE RELATIONSHIP OF TEACHERS' PERCEPTIONS OF THE DEGREE OF BUREAUCRATIZATION AND PROFESSIONALIZATION AND THEIR COMPLIANCE WITH ADMINISTRATIVE DIRECTIVES"

This study investigated the relationship among teachers' perceptions of the degree of bureaucratization within selected Mississippi public schools, the degree of professionalization, and their acceptance of authority. The intent was to determine the extent to which the two variables, school organizational structure and teachers' professional attitudes, influenced teachers' willingness to comply with administrative directives.

"A COMPARISON BETWEEN THE ACCEPTANCE OF AUTHORITY BY SECONDARY TEACHERS IN A STATE WHERE CONTRACTS ARE NEGOTIATED AND IN A STATE WHERE CONTRACTS ARE NOT NEGOTIATED"

Results of this study indicated that negotiated contract teachers were less likely to comply with directives than teachers whose contracts are not negotiated. Older negotiated contract teachers appeared less likely to comply with directives than younger negotiated contract teachers. Male negotiated contract teachers were less likely to

comply with administrative determined policy than males without negotiated contracts. White female negotiated contract teachers were less likely to comply with teacher determined practice directives than females without negotiated contracts.

"DIFFERENCES IN THE ACCEPTANCE OF AUTHORITY BY TEACHERS IN STRIKING AND NON-STRIKING DISTRICTS IN SELECTED SECONDARY SCHOOLS IN MISSISSIPPI"

This study determined if there were any significant differences between the zones of indifference of acceptance of authority by teachers in striking and non-striking school districts in selected secondary schools in Mississippi. School boards, superintendents, and principals have all been well established as positions of authority from which directives are issued. Compliance with these directives is supported due to the legitimacy of positions; however, the legitimation of authority does not guarantee the degree of compliance expected by administrators of the organization.

"THE RELATIONSHIP BETWEEN TEACHERS' ACCEPTANCE OF AUTHORITY AND THEIR LOCAL-COSMOPOLITAN ORIENTATION"

This study was concerned with the acceptance of authority of teachers with local orientation and teachers with cosmopolitan orientation on the two factors, teacher determined practice and administrator determined policy, and the total score of the Zones of Indifference Instrument.

Presenters will present their findings and will react to questions.

4:00 p.m. - 4:50 p.m. ADMINISTRATION/SUPERVISION (Discussion). . . . . Ruskins

Presider: Dorren Rafael Schmitt, University of New Orleans

Presenters: "THE KENTUCKY PRINCIPAL: A SELF PERCEPTION"

Dwight H. Cline and Michael D. Richardson, Western Kentucky University

Recent research has indicated the significance of the principal in effective schools. The principal's role is critical to the success of schools, but little valid information is available on current Kentucky principals and their perceptions of the job and its function. Therefore, an authoritative data base was essential regarding principals in the Commonwealth.

The Kentucky Administrator's Questionnaire (KAQ) was developed from similar research, particularly that of Clause Frady. The questionnaire was then field tested with graduate students at Western Kentucky University. The KAQ was mailed to all principals in the state. After follow-ups to non-respondents, a sufficient response was generated from participants to permit analysis of the data.

The 32-question instrument revealed the following demographic data: age, sex, marital status, race, size of school, salary, hours spent on the job, previous position, memberships, and educational attainment levels. Principals also rated current inservice programs and certification standards. Perceptions were also generated regarding the different roles of the principal and reasons for entering the principalship.

Finally, respondents rated the most important traits of a principal and reasons for the dropout problem. Data concerning principal turnover was also reported.

"A MEASURE OF COMMON VARIABLES ASSOCIATED WITH INSTRUCTIONAL STAGES AS PERCEIVED BY PRINCIPALS AND TEACHERS: VALIDATION OF A MODEL FOR INSTRUCTIONAL DEVELOPMENT"

Donald F. DeMoulin, Mississippi State University, and John W. Guyton, Murray State University

The objective of the presentation will be to disseminate research findings on teaching characteristics perceived by principals and teachers related to instructional stages. The number and nature of variables within instructional stages as perceived by

principals were investigated prior to the final identification of stages and were reported at the 1987 MSERA meeting.

Data analysis nas yielded a model of instructional stage development. Stages were derived from common sets of characteristics used as descriptors that differentiate one instructional stage from another, and added validity to DeMoulin and Guyton's four-stage instructional development theory.

Analysis of variance and factor analysis were employed to identify the number and nature of the underlying variables. The number and nature of instructional stages were established through principal and teacher perceptions that were factor analyzed and compared. Results of this analysis were used to develop an instrument, the Instructional Development Indicator (IDI), to assess an individual teachers' stage of instructional development; i.e., Professional, Development, Transition, or Decelerating.

Applications derived from this research include the individualization of staff development and a descriptive report of overall career level of a district. Stage identification will allow staff development to be tailor-made and thus more productive and relevant to teachers' individual needs.

"A SURVEY OF ELEMENTARY PRINCIPALS' CERTIFICATION REQUIREMENTS RELATING TO EARLY CHILDHOOD EDUCATION"

LaVisa C. Wilson, Auburn University

Early childhood education professionals have identified a body of knowledge and practice specific to the developmental needs of the children they serve. Early childhood education programs need systemwide support in policies, philosophy, goals, and curriculum and instruction. Early childhood classroom teachers have identified an incongruence between administrative expectations and developmentally appropriate early childhood education practices; elementary school principals frequently make administrative decisions that are counter to what early childhood educators have found to be appropriate for young children. A contributing factor to the incongruence may be that principals serving elementary schools may lack education and experience in early childhood education; therefore, their differing expectations may come from lack of knowledge of appropriate early childhood education practices.

In this investigation, a survey of the certification requirements of all 50 states was conducted. Professional preparation, level of teacher certification, and years and levels of teaching experience were analyzed. It was found that the majority of states identified elementary as K-8. An elementary teacher's certificate and elementary teaching experience were required of elementary principals in only some states. Even there, elementary certification and experience could be fulfilled teaching in junior high school where current practice differs from suggested practices for K-3.

4:00 p.m. - 4:50 p.m. TEACHER EDUCATION (Discussion) . . . . . Shannon

Presider: Merrylyn Moran-Smith, Kentucky State University

Presenters: "NCATE INFLUENCES ON MODELING PREPARATION PROGRAMS"

Bruce A. Peseau, The University of Alabama, Tuscaloosa

The new NCATE accreditation standards hold great importance for all colleges and schools of education since they must submit to a review within five years. The most significant standards are concerned with (a) how the programs are designed, (b) delivery of the curriculum, (c) the general education component, (d) specialty studies, and (e) professional studies. Programs must show coherence between courses, experiences, purposes, and outcomes. The criteria for judging compliance with the standards include (a) a model for overall program design; (b) knowledge base integration; (c) complementary general, specialty, and professional studies; (d) evidence of knowledge base throughout course syllabi, instruction, evaluation, student work, and in collaborative research; and (e) faculty participation in program development and change.

A series of models is shown that might provide the structure for program development and description. First, an overall model of curriculum, student diagnosis, training, and validation is shown. Seven sub-models show more detailed program elements:

(a) the knowledge base sources from cognate and applied sciences, (b) knowledge of applied behaviors, (c) operational behaviors, (d) student assessment, (e) clinical preparation, (f) research competencies and experiences, and (g) placement and professional development.

"AN INVESTIGATION OF TEACHER EFFECTIVENESS IN SCIENCE TEACHING BASED ON THE PERCEPTIONS OF FIFTH- AND SIXTH-GRADE STUDENTS"

Dale R. Rice and Leigh Matthews, Auburn University

The purpose of the study was to determine the perceptions of fifth- and sixth-grade students in regard to the effectiveness of their science teachers. A 25-item questionnaire was developed that contained items dealing with elementary science teacher effectiveness. The students indicated their response to each statement by choosing among four responses on a Likert scale. The items were selected for the questionnaire based on previous research dealing with teacher effectiveness.

The questionnaire was distributed to students (n = 169) in eight classrooms in an elementary school in southeastern Alabama. Four of the classrooms were identified as the top science groups, and four of the classrooms were identified as the low level science groups. Responses to the questionnaire were analyzed by a factor analysis of the items and a three-way ANOVA by sex, class level, and race. Tentative results indicated that significant results were found among the variables. The data suggested that students who were in the low level classrooms perceive their teachers as less effective than those students in the high level classrooms.

Additional results about student perceptions regarding teacher effectiveness will be analyzed and discussed. The findings and implications for teacher education and classroom presentation will be presented.

"REFLECTIVE TEACHING AND TEACHER EFFECTIVENESS: MEASUREMENT CONSIDERATIONS"

Peggy C. Kirby, University of New Orleans

Reflective practice is the integration of research, theory, and experience in the formulation of solutions to problems of practice that are complex or unique. Schon (1983) theorizes that, in professions characterized by ambiguous or conflicting theories, a reflective stance will lead to increased effectiveness.

This research was an initial attempt to operationalize the concept of reflective practice in teaching and to empirically test the relationship between reflective practice and teacher effectiveness. A 26-item Reflective Teaching Instrument (RTI) was developed based on the hypothesized dimensions of reflective practice, expert assessment of item validity, and pilot testing.

The instrument was revised to 15 items based on field study results from 102 classroom teachers. The Cronbach alpha reliability coefficient of the 15-item scale was .70; validity was supported through factor analysis and correlation with two scales measuring related constructs: Budner's (1962) Scale of Tolerance/Intolerance of Ambiguity and Gibson and Dembo's (1984) Teacher Efficacy Scale.

Measures of teacher effectiveness gathered through one-hour classroom observations of 102 teachers were not significantly correlated with scores on the RTI. Personnel Causation was the only subscale of the RTI with a positive and statistically significant correlation with effective teaching. Three alternative explanations for these findings are discussed.

4:00 p.m. - 4:50 p.m. RESEARCH METHODOLOGY (Discussion). . . . . Edinborough

Presider: Daniel Fasko, Jr., Morehead State University

Presenters: "AN EXPLORATION OF EDITORIAL OPINION CONCERNING EDUCATIONAL REFORM IN LOUISIANA: A CONTENT ANALYSIS"

Tommy R. Harrison, Central Louisiana Professional Development Center; Sandra W. Long, Louisiana State University-Shreveport; Nancy L. Monroe, Rapides Parish (LA) School Board; and Anna H. Costarides, University of South Alabama Medical Center

A demand for a content analysis of educational information the public absorbs from the press is well documented in the literature. It has been suggested that news articles about education might well be content-analyzed.

Following the steps in doing content analysis, a research team reviewed all articles appearing on the editorial page of the only daily newspaper in central Louisiana. Due to the immense volume of information collected, the team decided to focus on editorials alone.

Reviewing the data, the researchers then addressed unitization and sampling concerns; inference and analysis guidelines were strictly followed. Qualitative procedures for ensuring validation and reliability were also implemented.

Results indicated that the newspaper editorials supported educational reform in Louisiana. The frequency of educational articles reflected the prominence of educational concerns within the community and the need for such concerns at that time.

A monopoly, the newspaper both reflects and influences the opinions of the community. Therefore, the newspaper's stand on education was a critical factor in the way the community viewed education.

The research team suggests future research involving comparative analyses between newspapers of similar size, those serving a community of the same size, and those that are not monopolies.

"STIMULATED RECALL AND TEACHERS' THOUGHT PROCESSES: A CRITICAL REVIEW OF THE METHODOLOGY AND AN ALTERNATIVE APPROACH"

Marcia J. Keith, Maryville College

Stimulated recall has typically been used in studies of teachers' (1) interactive thoughts, (2) interactive decision making, and (3) implicit theories. The assumption behind the first two types of studies is that the videotape (or audiotape) cueing allows a teacher to recall thoughts as they were occurring. The third type of study does not make this assumption, but rather considers the interview data as elicitations of the teachers' implicit theories/beliefs about the classroom events as they see them on tape - their current sense-making of the events.

This paper examines the application of stimulated recall methodology to the three categories of studies on teacher thinking. The author suggests that criticisms of this methodology, which include actor/observer bias, and whether or not teachers are reporting on their thinking or reporting on their thinking about their thinking (using metacognition), make its use suspect in certain cases (types 1, 2). The author then suggests that "stimulated recall" might be the method of choice to elicit teachers' valued beliefs and implicit theories (type 3). Such a use would recognize the process as "stimulated elicitation." A unique analytical technique consonant with this view is presented, which is based upon coding of the interview data by the teacher as co-researcher.

"USING ROBUST ESTIMATORS OF LOCATION FOR REAL DATA WITH SAMPLES OF SELECTED SIZES"

Cordelia Douzenis and Ernest A. Rakow, Memphis State University

Researchers often have concerns about the influence of the distribution of their data upon the accuracy of their statistics. It becomes a difficult challenge to choose an appropriate sample estimator that will accurately reflect a population distribution in question, since problems such as non-normal distributions, outliers, and missing data effect the performance of classical estimates of central tendency. Robust estimation provides an alternative to traditional methods of estimation.

An estimator is considered robust if it performs well under a variety of underlying conditions and possesses insensitivity to small deviations from the

assumptions. Previous studies involving robust estimators have been based on computer-simulated data or intricate mathematical theory; however, several statisticians have recently urged that robust studies utilizing "real" data be undertaken.

Six populations from an actual educational study were used as data in this study. Fourteen robust estimators, in addition to traditional measures of location, i.e. the mean and median, were calculated on randomly-selected samples of sizes 10, 20, 50, and 100 drawn from each of the populations. This study determines the relationship between the performance of estimators and sample size and whether the use of an alternative measure of central tendency is worthwhile.

5:30 p.m. - 6:00 p.m.	PRESIDENT'S ADDRESS. . . . . Scots
Presider:	Carl R. Martray, Western Kentucky University
Speaker:	Carolyn C. Williams, Mississippi State University
6:00 p.m. - 7:15 p.m.	PRESIDENT'S RECEPTION. . . . . .Poolside
7:30 p.m. - 8:30 p.m.	GRADUATE STUDENTS' RECEPTION . . . . . President's Suite
Coordinator:	Bruce A. Crowe, Mississippi State University

THURSDAY, NOVEMBER 10, 1988

8:00 a.m. - 4:00 p.m.	Registration . . . . . .Meeting Area
8:00 a.m. - 8:50 a.m.	READING (DISCUSSION) . . . . . .Aberdeen
Presider:	Cynthia Ann Ward, University of Southern Mississippi
Presenters:	"THE RELATIONSHIP BETWEEN THE LEARNING STYLES AND READING ACHIEVEMENT OF SIXTH-GRADE STUDENTS IN THE STATE OF ALABAMA"
	Marion Kay Atchison, Alabama State Department of Education, and David M. Brown, The University of Alabama

The problem was to determine if statistically significant relationships existed between the learning styles and reading achievement of sixth-grade students in Alabama. Also, the researchers attempted to determine if statistically significant relationships existed between the learning styles of students and their gender, the location of their schools, and their racial identification.

The 405 students were administered the Gregorc Style Delineator, the Hunt Paragraph Completion Method, the Renzulli-Smith Learning Style Inventory, and the Carbo Reading Style Inventory. Sixteen analyses were conducted using chi square with a $p \leq .01$ level of significance.

The results revealed that a statistically significant relationship existed between the learning styles of students as identified by (1) the Hunt Paragraph Completion Method and their total reading achievement scores on the Stanford Achievement Test, the locations of their schools, and their racial identification, and (2) the Cargo Reading Style Inventory and their total reading achievement scores on the Stanford Achievement Test.

The researchers concluded that the Hunt Paragraph Completion Method and the Carbo Reading Style Inventory would be useful in making decisions about the types of

reading instruction and/or materials appropriate for use with sixth-grade students in Alabama.

"WHAT WORKS: READING IMMERSION PARTNERSHIPS"

Vickie Medley and Paul L. Jones, Chief of Naval Technical Training

Adult illiteracy is a unique challenge for America; it must be turned around. This study, using community partnerships betweeen military, educational, business, health care, and governmental organizations, describes a reading immersion program conducted with 90 adult learners. Instruction was conducted with employed adults on and off the jobsite, umemployed high school dropouts, and "at risk" high school students who all read below 7.0. The two-week, all-day project focused on developing reading comprehension skills. Pretests and posttests using the Gates-MacGinite Reading Tests measured reading grade level. The Attitude Toward Education Scale measured learner perceptions about education. Statistical analysis showed a reading grade level increase of 1.9 years and that learners exhibited a more positive attitude toward education. The reading immersion program is not a panacea to cure all ills, but it appears to increase reading grade level while creating learner interest and repairing self-esteem. Lessons learned provide insight to other organizations interested in developing community partnerships to combat illiteracy.

"THE SOCIAL/CULTURAL CONTENT OF THE AMERICAN READER: WHOSE RESPONSIBILITY?"

Mozelle P. Leach, Mississippi State University

One of the chief criticisms being currently leveled at the schools is that currently used textbooks "kill whatever appetite children may have for reading." A recently published statement in an Executive Summary from the Council for Basic Education stated that "Children need to form the idea early in life that books open up worlds of delight and vicarious experience. If schools purchase primers containing empty or pointless stories written in stilted, unnatural English, they have lost a major opportunity to convince children that reading is both joyful and satisfying." They contend that current books, including readers, are boring, incoherent, dumbed-down, and that they butcher, mangle, and maul morals and specific subjects. The belief is stated that first textbooks should not only be delightful, but should also "usher young children into the riches of our culture."

The social/cultural content of the American readers, with particular emphasis on beginning and early readers, is examined historically. Who has had the responsibility for determining the value of the stories, the quality of the English, and the importance of the morals included in readers? Who is ultimately responsible for the suggested content changes?

8:00 a.m. - 8:50 a.m. CURRICULUM (Discussion). . . . . Bagpipe

Presider: Alpha S. Humble, Mississippi State University

Presenters: "A COMPARISON OF ATTITUDE TOWARD SCHOOL SUBJECTS AND ACHIEVEMENT IN AN ALTERNATIVE AND TRADITIONAL ELEMENTARY SCHOOL"

Sandra L. Rasberry, Mississippi State Department of Education, and James S. Turner, Mississippi State University

This study investigated the question of whether students enrolled in an alternative school differed in their attitude toward school subjects and in academic achievement from students enrolled in a traditional school. Thirty-three sixth-grade students enrolled in an open education school that utilized an integrated curriculum and multigraded classrooms were compared with 33 sixth-grade students enrolled in a traditional school that utilized a subject centered curriculum and single grade groupings. Data obtained from the Survey of School Attitudes measured attitude toward school subjects. Achievement was measured by data obtained from the Stanford Achievement Test.

Multivariate analysis of variance was used to test all variables. A covariant, a pretest mean score, was included in the analysis of achievement data. No significant

differences existed between the two groups on any of achievement or attitude areas. Significant differences were found when comparisons were made between all males and females. Females demonstrated a more positive attitude toward reading/language, mathematics, and social studies. Males performed at a higher level in science than females. Gender, rather than participation in an alternative school program, is a better predictor of achievement and attitude toward school subjects.

"TEACHER EVALUATION OF MATHEMATICS CURRICULUM OBJECTIVES"

J. Reid Jones and T. Gene Hamon, Delta State University, and Susan Hart-Hester and Donna Lander, Mississippi State Department of Education

The Mississippi State Department of Education has funded needs assessment research concerning mathematics performance among 24 school districts in the rural, Delta region. Interviews with teachers and administrators were used as the basis for designing written surveys for teachers. The problem reported in the present paper was to identify, for these surveys, the priorities teachers place on recommendations for improving mathematics achievement.

Surveys were distributed by teachers, collected anonymously, and mailed to a regional university for data collation. Response rate using these procedures was exceptional with 896 (95%) teachers returning completed surveys. Survey items requested responses concerning background information on the teacher, priority rankings for a series of recommendations about improving mathematics instruction, and evaluations of state mathematics objectives.

Elementary teachers had taken fewer mathematics courses, were less interested in continuing mathematics education, and were more likely to judge objectives unfavorably. Secondary teachers, certified in mathematics, were more likely to support the curriculum and continuing education. Both groups supported recommendations for required remediation and provision of more teacher-ready mathematics curriculum materials.

These and other findings were used to draft proposals for improving mathematics education, including sharing of resources and more elementary teacher involvement in mathematics curriculum issues.

"INDUSTRY/ELECTRONICS EDUCATION JOINT VENTURE"

Carolyn S. Bookout and William K. Cox, The University of Tennessee, Knoxville

In order to enable secondary electronics teachers in Tennessee to attend free training and skills updating at The National Program for Electronics Training (NPET), UTK Curriculum Development Project developed a program that seeks private sources of support for teacher participation. Teachers and local industries entered a joint venture to improve the quality of electronics-related training.

All secondary electronics-related teachers were contacted to assess interest in participation. Participating teachers were matched with local electronics-related industries, and a working relationship was established. Local industry sponsored the teacher by paying expenses to attend NPET. Teachers worked with sponsoring industry, increasing local industry's input into the educational process.

Since this is the pilot year of the project, data have not yet been collected. Evaluation forms will be completed by teachers and industries at the end of the year to assess the effectiveness of the project for teachers and sponsors and extent of future interest. Response indicated a strong interest by both teacher and industries.

This project may serve as a model for other areas in vocational education where advanced skills training may be sponsored. Also, other states or local districts might be interested in this project as a model for creating joint ventures between industry and vocational programs.

"IMPACT OF EDUCATIONAL REFORMS ON HIGH SCHOOL AGRICULTURE PROGRAMS"

Ben L. Byler, Edwin E. Lamberth, and Richard K. Fletcher, Tennessee Technological University, and Linda F. Byler, The University of Tennessee, Cookeville

This study was designed to determine the perceived impact of educational reforms on high school agriculture programs in Tennessee as viewed by principals and their vocational agriculture teachers.

The population consisted of all Tennessee high school vocational agriculture teachers and their principals. A demographic data questionnaire and a survey instrument were developed by the researchers and refined by the Tennessee Joint Staff for Agricultural Education.

Responses to the survey questionnaire were analyzed using descriptive statistics, factor analysis, and multivariate analysis of variance.

Based on the findings, the principals and agriculture teachers believed that 19 of the educational reforms had positively affected vocational agriculture programs. Principals and agriculture teachers believed that 14 of the educational reforms had negatively affected vocational agriculture programs. Several of these reforms relate to the increase in graduation requirements and increased emphasis on the college preparatory curriculum. Agriculture teachers perceived that educational reforms were having a more negative impact on vocational agriculture programs than did their principals.

Program and curriculum articulation among vocational agriculture teachers, advisory councils, administrators, and business, labor, and civic leaders should be enhanced.

8:00 a.m. - 8:50 a.m. HEALTH EDUCATION (Discussion). . . . . Ruskins

Presider: Carolyn Reeves-Kazelskis, University of Southern Mississippi

Presenters: "A LONGITUDINAL STUDY OF HEALTH AND FITNESS VARIABLES IN UNIVERSITY FACULTY AND STAFF"

John Ward Tishler, University of Montevallo

A university-sponsored Health Promotion and Wellness Program, developed in 1982, provided fitness assessment, exercise programs, and seminars for faculty and staff. This study compared responses on an assessment of physiological and emotional variables related to health with responses made five years earlier by program participants.

The Health Hazard Appraisal was administered to 117 participants in the program during 1983. In the spring, 1988, a second appraisal was made of selected variables on the HHA. There were 58 respondents in the second administration due to attrition. Frequencies and percentages were computed on item responses.

Comparison of data revealed a reduction in personal medical problems, an increase in knowledge regarding exercise and fitness with a subsequent increase in the number of individuals participating in some form of regular strenuous exercise, and a substantial increase in the use of automobile seat belts. However, subjects indicated less interest in structured programs of exercise, stress management, and weight control.

It was concluded that positive changes occurred in a population that participated in a voluntary health promotion and wellness program in a worksite environment.

"WHAT EDUCATORS SHOULD KNOW ABOUT CHILD SEXUAL ABUSE"

Kathleen C. Heath, Baldwin County (AL) Mental Health Center, and Donald W. Irvine, University of South Alabama

The purposes of this paper were to investigate the nature, incidence, and causes of child sexual abuse; to describe family characteristics of abusive homes; to describe the short- and long-term effects of abuse on the victims; and to describe means of assisting victims in recovering from the effects of abuse.

A review of the literature revealed a growing awareness of and reporting of

child sexual abuse by the public. Psychological treatment of perpetrators, victims, and their families is gradually gaining more support as an adjunct to legal action.

Child sexual abuse is psychologically devastating to the normal development of its victims, who often have serious difficulties in functioning in marital and parental roles. Psychotherapy specifically attuned to victims' needs is vital. Although the public has recently become more knowledgeable regarding sexual abuse, there is still a great need for increased awareness and willingness to take appropriate action.

"THE EFFECTS OF SINGLE VERSUS MULTIPLE STRESS MANAGEMENT TECHNIQUES AND LIFE STRESS ON THE PRODUCTION OF CREATIVE RESPONSES IN INTERMEDIATE-LEVEL SCHOOL CHILDREN"

John W. Lancaster, Lawrence County (MS) Counseling and Mental Health Center, and Avis J. Ruthven, Mississippi State University

The purpose was to determine whether single and/or integrated stress management techniques are effective in enhancing the production of original verbal responses, as measured by Sounds and Images (SI) and Onomatopoeia and Images (OI), when considering gender and life stress. Cognitive, somatic (relaxation techniques), cognitive-somatic, and somatic-cognitive stress management techniques were investigated in a posttest only, experimental and control group design.

Subjects were 122 rural elementary males and females, who were divided into high and low life stress groups based on scores on the Schedule of Recent Life Experiences. These groups were randomly assigned to experimental and control conditions.

Utilizing factorial ANOVA, significant results were obtained for all main effects on both creativity measures. A significant two-way interaction and a three-way interaction were found on SI only.

The results support previous findings that relaxation techniques can be used to increase the production of original verbal images and that lengthy treatment procedures might hamper the production of creative images. The results suggest that the effect of stress management training upon the production of creative images may depend upon the type of training received, the life stress, and the gender of the individual.

8:00 a.m. - 8:50 a.m. ADMINISTRATION/SUPERVISION (Discussion). . . . . Shannon

Presider: William Impey, Kennesaw College

Presenters: "PRINCIPALS' PERCEPTION OF THE IMPACT OF A COMPREHENSIVE INSERVICE EDUCATION CENTER"

William D. Ernest and Anne G. Tishler, University of Montevallo

Professional development of personnel is vital for improving education. Consequently, in 1984, Alabama created a network of inservice centers through the state. These centers provided needs-based, accessible inservice activities for four years. Teachers and administrators took to their schools many materials, ideas, and skills developed as they participated in inservice activities. Participant evaluations of these activities were positive; however, what was the impact on the schools? This study attempted to determine (1) if principals perceived positive changes in their schools as a result of teacher and administrator participation in center-sponsored professional development activities and (2) what kinds of changes had occurred.

Principals from 68 of the 92 schools in one inservice region (74%) responded to a questionnaire developed by inservice center staff. Frequencies and percentages of response to items were computed. Group comparisons were made according to relevant demographic characteristics using the chi square statistic.

Results indicated that 87% of the principals perceived positive school changes as a result of workshop participation. Greatest changes occurred in computer-assisted instruction, development of new teaching materials, and increased awareness of legal issues. Successful schoolwide projects (e.g., discipline programs, computerized record keeping, writing across the curriculum) were reported by a majority of the respondents.

"ADMINISTRATORS' RESPONSE TO TEACHER TRAINING REFORM"

Suzanne B. Ellis and Robert O. Riggs, Memphis State University

Since the 1986 publication of Holmes Group and Carnegie Task Force reports recommending major changes in the preparation of teachers, state policy making agencies have enacted a variety of reforms similar to those recommended. Among the most comprehensive plans was the one approved in the spring, 1988 by the State of Tennessee. In order to measure the reaction of teacher education administrators to such a plan, an instrument was constructed containing components of the Tennessee plan. Responding were 261 administrators of NCATE-approved programs. Response patterns between items were examined, as were relationships between item responses, institutional characteristics, and respondents' perceptions of institutional autonomy issues. A high degree of variance on items and overall weak relationships to other factors appeared to indicate a lack of consensus among those responsible for implementing current and future reforms in the preparation of teachers at colleges and universities.

"A STUDY OF THE ATTITUDES AND PERCEPTIONS OF PRINCIPALS TOWARD THE ADOPT-A-SCHOOL PROGRAM AND RELATED PROGRAM CHARACTERISTICS"

Susie Lee Hodge, Memphis State University

The adopt-a-school program is important to the improvement of public education. The principal serves as instructional leader and change agent in the school building. Her/his leadership is vital to the success of the program. The purpose of this study was to determine the attitudes and perceptions of the principal toward the adopt-a-school program, the program characteristics of school adoptions, and the factors contributing to the maintenance and improvement of present and future partnerships between schools and communities.

The one-way analysis of variance, ANOVA, was the statistical test used in testing the hypotheses at the .05 level of significance. The results of the study revealed several significant factors. There is a relationship between the type of adoptor and (a) the perceived extent of program satisfaction and (b) the perception that the adopt-a-school program provides useful motivational activities. A relationship exists between the attitude toward community involvement in general and the attitude that the adopt-a-school program influences the community to support the public schools. A relationship also exists between the teaching staff size of the school and the number of adoptor organizations in the school.

"ACTUAL AND PREFERRED BEHAVIORS OF SUPERVISING TEACHERS AS MEASURED BY FORM 1 OF THE SUPERVISING TEACHER BEHAVIOR DESCRIPTION QUESTIONNAIRE (STBDQ)"

Walter E. Sistrunk and James R. Thomson, Jr., Mississippi State University

The problem was to determine the perceptions of supervisions and student teachers of the actual and preferred supervisory behaviors of supervising teachers. The study sought to determine (1) if there were significant differences between student and supervising teacher's perceptions, (2) if elementary and secondary teachers differed in their perceptions, and (3) if the variables of race or gender influenced their perceptions.

The population consisted of all persons enrolled as student teachers at Mississippi State University in the spring, 1988 and their supervising teachers. Seventy student teachers and 66 supervising teachers responded.

Analysis of variance was the statistic used to analyze the data. No significant differences were found between perceptions of actual and preferred behavior by either student or supervising teachers. When the variables of level of assignment, race, and gender were considered, there were no significant differences. These findings are different from those obtained with the STBDQ by the researchers in two earlier studies. Therefore, it seems that the state and the University have succeeded in standardizing many supervisory practices.

THURSDAY, NOVEMBER 10, 1988

8:00 a.m. - 8:50 a.m. MATHEMATICS (Discussion) . . . . . Edinborough

Presider: Sherrill M. Evans, Mississippi State University

Presenters: "EVALUATING THE MATHEMATICS SCORES OF STUDENTS WHO PARTICIPATE IN A SCHOOL STORE PROGRAM"

Carol David, University of Louisville

For the past three school years, a major supermarket has supplied a small grocery store in one of Jefferson County's elementary schools. This elementary school has a kindergarten, grades one through five, and several special education classes. One purpose of this store is to provide the students, who receive salaries for certain behaviors, practical learning experiences in mathematics and economics.

Kapp (1981), Burkett and Whitfield (1985), and Ortiz and Kourilsky (1985) contended that school stores provide students with practical experiences which may contribute to higher mathematics achievement. Ortiz and Kourilsky used multiple regression analysis in their research. Their findings were that participation in a simulated program such as a school store explained 46% of the variance in mathematics scores on a specially constructed instrument.

In contrast to their study, this study is a longitudinal one involving the analysis of the mathematics scores of 43 students who attended this elementary school during the school year prior to the opening of the store and during the first two years of the store's operation. Normed curve equivalents for computation, concepts and applications, and total scores were used in repeated measures analysis of variance and t-tests. Then these mean scores were compared to those of the school years for the same grade levels during the three years.

Although the groups mean score for computation increased, the results of the analysis of variance and t-tests showed no significance. When the students' mean scores were compared with those of the district, only those who went from grades one to three had higher scores. The results of this study are inconclusive perhaps because of the difficulty in assessing practical applications with standardized achievement tests.

"QUALITIES EXHIBITED BY EFFECTIVE MATHEMATICS TEACHERS: PERCEPTIONS OF PRESERVICE AND INSERVICE TEACHERS"

James F. Strickland, Jr., Jane A. Page, and Fred M. Page, Jr., Georgia Southern College

The principal problem under investigation in this study was to determine preservice and inservice teachers' perceptions of qualities exhibited by effective mathematics teachers. A secondary purpose was to determine differences in perceptions among teachers grouped according to the following background variables: (1) degree level, (2) number of mathematics and mathematics education courses successfully completed in high school and college, and (3) grade levels for which certification was either held or anticipated.

A survey instrument containing a Likert-type scale was administered to over 100 randomly-selected preservice and inservice teachers enrolled in a public four-year college during 1987. The subjects rated 33 qualities of mathematics teachers from "not important" to "very important." Additionally, subjects chose and ranked the five qualities which they considered to be the "most important."

Results indicated that the following qualities are perceived as being most important: knowledgeable in mathematics, enjoy teaching, explain mathematics clearly, work with all students to help them achieve their potential, and express interest in students as individuals and not just as learners.

According to several recent assessments, America's students are not measuring up in mathematics. Knowledge gained from the present study is potentially useful to mathematics educators and others in bringing about needed reforms.

"GENDER PREFERENCE AND MATH PROBLEM SOLVING"

Laura G. Murphy and Steven M. Ross, Memphis State University

The purpose of this study was to assess student learning and attitudes when given mathematical story problems featuring protagonists (main characters) of the preferred gender, non-preferred gender, or both genders.

A total of 252 adolescents enrolled in eighth-grade math classes from a rural and a suburban community participated in the study. First, a review session on solving word problems was given, after which students completed an attitude survey and also indicated their preference for the gender of the protagonist in a math problem-solving set. Subjects were then randomly-assigned preferred protagonist, non-preferred, or mixed-protagonist conditions and were asked to solve eight story problems involving identical operations, but a male-oriented, female-oriented, or mixed story line, depending on treatment.

Both males and females showed a strong preference for their own gender protagonist ($p < .001$). Female problem performance exceeded male performance, regardless of the protagonist's gender. For the rural sample only, those who received the preferred-gender materials scored higher than those in the non-preferred and mixed groups. The results supported the following conclusions: (1) in contrast to previous findings, females were not at a disadvantage in solving math word problems, (2) both males and females preferred educational materials featuring characters of their own gender, (3) accomodating gender preferences translated into higher performance levels, and (4) led to more positive attitudes toward the materials.

9:00 a.m. - 9:50 a.m. RESEARCH METHODOLOGY (Discussion). . . . . .Aberdeen

Presider: Susan K. Kappelman, Jefferson Parish (LA) Schools

Presenters: "UNDERSTANDING EXPERIMENTWISE ERROR PROBABILITY"

Gloria Love, Orleans Parish (LA) Public Schools

Many researchers understand the use of small alpha levels as a protection against Type I error. The alpha level used in testing a given hypothesis is termed the testwise error rate. What many researchers fail to understand is that the testing of several hypotheses in a single study can seriously inflate the probability of making a Type I error somewhere in the study (i.e., the experimentwise error rate) substantially above the alpha level used to test each hypothesis separately. The implications of this elevation are explored using the chi square test, a test that may be overutilized in contemporary research practice.

"THE CASE AGAINST USING STEPWISE RESEARCH METHODS"

Betty M. Davidson, University of New Orleans

Stepwise analytic methods are among the most commonly applied methods in educational and psychological research. These methods can be used in various analytic procedures, including multiple regression analysis and discriminant function analysis. Related methods can also be used in canonical correlation analysis, an analytic method that subsumes all parametric methods as special cases.

Researchers sometimes employ stepwise methods to eliminate variables from analyses when the variables do not appreciably improve the ability to explain or predict one or more dependent variables. Other researchers use these methods in support of inferences about the importance of various predictor variables. This paper argues that stepwise methods are usually not appropriate to use for either of these purposes. Small data sets are presented in order to illustrate the fallacies that can be produced from the incorrect use of stepwise methods.

"DETERMINATION OF PASSING SCORES: A COMPARISON OF METHODS"

Leroy P. Metze, Carl R. Martray, and Dan Roenker, Western Kentucky University, and Betty Lindsey, Kentucky Department of Education

A recent validation study of the NTE, using a stratified random sample of public school personnel and teacher educators, permitted a comparison of methods for establishing minimum passing scores. In addition to the test validation procedures, the participants

responded to additional questions about each item: (1) Should a minimally-knowledgeable, first-year teacher know the answer to this item? and (2) What percentage of those teachers would be able to answer this item correctly? Finally, participants were asked to indicate the total number of questions that these teachers should be required to answer in order to pass this NTE test.

These questions are the basis for three different methods for determining a minimal passing score: the Single Point, Bipolar, and Gradient Methods. While each method has a history of use for establishing minimal passing scores, the present study provided opportunity for direct comparison of the three methods using the same participants.

The Bipolar Method consistently yielded higher minimum passing scores than the Single Point Method, which in turn yielded scores consistently higher than the Gradient Method. The relative advantages and disadvantages of each of the methods are discussed. Such a comparison may provide a basis for an informed choice of methods in future validation studies.

9:00 a.m. - 9:50 a.m. PREDICTING SUCCESS (Discussion). . . . . Bagpipe

Presider: Jasmin McConatha, Auburn University

Presenters: "EARLY IDENTIFICATION OF HIGH ATTRITION RISK COMMUNITY COLLEGE STUDENTS"

David H. Stamper, Community College of the Air Force, and Russell C. Wilson, Auburn University

Attrition in the community college costs in terms of institutional resources and the self-concepts of withdrawing students. Early identification of high-risk students could assist in counseling and support services designed to lower attrition. The Armed Services Vocational Aptitude Battery (ASVAB), used for placement in military education and training, is widely administered in secondary school settings and could provide attrition risk information for postsecondary education.

Using six-year-old student records, 600 graduates and 600 nongraduates of the Community College of the Air Force were randomly selected. Discriminate analysis, utilizing four ASVAB composite scores, was used for classification. The classification was found not to be random ($p < .0001$, r square = .28).

Non-graduates were correctly classified 86% of the time. Only 52% of the graduates were properly classified. The procedure was more sensitive to high attribution risk students.

In view of "open-door" enrollment policies and a typical lack of assessment upon enrolling at the community college, available ASVAB scores could provide valuable information for identifying high attrition risk students. Such information could assist the counseling of enrolling students. Further investigation could explore increasing classification accuracy by combining ASVAB scores with additional student information (GPA, etc.).

"THE ROLE OF CLASS, INSTRUCTOR, AND STUDENT VARIABLES IN PREDICTING ACHIEVEMENT AND INSTRUCTOR RATINGS IN A COLLEGE LEVEL ECONOMICS COURSE"

Daniel J. Mueller and Lonnie Sears, Indiana University

Studies predicting college achievement from aptitude and demographic variables are numerous. The results of these studies, however, have limited value for teaching. In the present study, characteristics of instructor and of class were combined with student characteristics to improve prediction. These included class size, time of day, number of class meetings per week, sex and nationality of instructor, teaching experience, and (for associate instructors) grade in a teacher training class. The rationale is that instructor and class characteristics can be controlled to maximize instructional outcomes.

Three hundred ninety-eight sections of a beginning economics class taught by associate instructors and 98 sections taught by faculty served as the data bases for this study. Multiple regression was used to determine the relative contribution of the class

and instructor variables. A common final (standard scores by year) and instructor rating served as criteria.

Conclusions were the following: (1) sections meetings in the middle of the day had the highest final examination scores; (2) teaching experience was positively related to achievement and to instructor rating; (3) American associate instructors' sections had higher instructor ratings and higher final examination scores than did foreign instructors' sections; and (4) sections meeting three times weekly had higher achievement and higher instructor ratings than did sections meeting twice.

In addition to the usual academic predictors, time of day, number of class meetings per week, foreign vs American instructor, and teaching experience seem to play important roles in student achievement and in student ratings of instructors. It is not known whether these relationships are causal.

"INCREASING THE PREDICTABILITY OF SUCCESS IN THE FIRST YEAR OF LAW SCHOOL"

Paul V. Murray and Justin E. Levitov, Loyola University

The Law School of Loyola University has maintained an interest in identifying useful predictors of success in law school so that admissions requirements could be more appropriately applied. Standard prediction equations using the LSAT and the undergraduate grade point average have been only minimally useful, and this research represents an attempt to advance these attempts at prediction. The study employed essentially two different strategies for acquiring the necessary information regarding possible factors which would influence the success of first-year law students.

The first hypothesis postulated that field independent students would have higher freshman grade point averages than field dependent students. The Embedded Figures Test was used to measure field dependence; however, the results in correlation coefficient between the Embedded Figures results and the freshmen grade point average were not statistically significant, and it was not educationally useful. The second phase of the study employed the use of semi-structured interviews, and the results of this endeavor proved to illuminate some of the factors that are useful in determining student success in law school.

One important finding gleaned from the interview sessions was that, while successful students did not employ similar study strategies, all successful students employed some specific study strategy for the purpose of organizing the immense body of information required in the first year of law school. Furthermore, the results suggested that there may not be easily quantifiable predictors or any simple methods that can be used to increase the success of law students in their first year. As previously anticipated, it was found that law school exists as a complex and interrelated process that has student variables, school variables, and teacher variables interacting simultaneously. Some recommendations concerning teaching activities and course content were taken for the interviews, and these recommendations were passed on to law school administrators.

"PREDICTING SUCCESS FACTORS IN INSTRUCTIONAL DEVELOPMENT PROJECTS IN SOUTHERN INSTITUTIONS OF HIGHER EDUCATION"

Louise Jackson Jones and T. Lee Napier, Jackson State University

This study provides an examination of factors which contribute to the success of instructional development projects as perceived by administrators, project directors, faculty, and support staff in southern institutions of higher education. The reported success factors and reported limiting factors were compared with those identified in a prediction model obtained from studies on instructional development projects in institutions of higher education in northeastern United States and Australia.

The data for this study were obtained by use of a survey which was mailed to a total of 439 project directors, administrators, faculty, and support staff at project institutions. There were 220 surveys returned and used in the data analysis for this study.

The major findings of the study were as follows: (1) the majority of the respondents perceived their projects as being successful; (2) of the four factors identified in the replicated study, three were confirmed in this study; (3) the four hypotheses tested using multiple regression were significant at the .05 level, the fifth hypothesis was partially supported, as all path relations were not significant; and (4) factors ranking high as reported success factors were skill of support staff, faculty, participation and availability of materials, and technical services; factors ranking high as reported limiting factors were lack of faculty participation, lack of time to implement the project, and not enough materials production time.

9:00 a.m. - 9:50 a.m. TEACHER EDUCATION (Discussion) . . . . . Ruskins

Presider: Jane H. McHaney, Kennesaw College

Presenters: "TEACHER EDUCATION FOLLOW-UP SURVEYS: ARE RESPONDENTS REPRESENTATIVE OF THE GROUP?"

Judith A. Boser, The University of Tennessee, Knoxville

Two hundred ninety-seven persons completing teacher certification programs at a major university in the southeast in 1986-87 were surveyed by mail in the spring, 1988 to obtain information regarding their career progress and plans and to obtain feedback regarding their teacher preparation programs. Two hundred twenty-six persons (77.4%) responded to the survey. To examine the extent to which the respondents were representative of the population, information on nonrespondents was obtained from students records and a previous employment survey to compare with the characteristics of the respondents. Available information included age, employment, location, gender, graduation date, undergraduate grade point average, and scores on the ACT and the core battery of the National Teacher Examinations.

Chi square tests were used to compare respondents and nonrespondents on employment, date of graduation, location, and gender. Independent t-tests were used to compare groups on age and GPA. Mann-Whitney tests were used for comparison of scores on the ACT and the NTE. No statistically significant differences were found between respondents and nonrespondents using a .01 level of significance (because multiple tests were conducted). Plans are to contact a sample of nonrespondents by telephone to determine whether the items related to program evaluation are subject to nonresponse bias.

"MEDIA COMPARISON: VIEWING THE PAST WHILE LOOKING TOWARD THE FUTURE"

Charles W. Schultz, Memphis State University

When a teacher is trying to convey information, he often uses an educational medium to transmit his message clearly. As the number of media choices has increased, the question of selecting the best medium arises. There have been studies, for example, comparing print to film, film to audio tape, and computer to print. The results of media comparison research have ranged from a significant difference to no significance.

Media research is consistently inconsistent in its results, and it is the subtle differences in media that may influence learning-related behaviors. Media selection research, therefore, has begun to focus not on the medium but the unique qualities which that medium possesses. What is important are the critical attributes of each medium. Matching the attributes of the medium with the learner and the learning task is what will make instruction effective.

This paper presents an overview of media comparison literature. It begins with the pros and cons of media research, discusses the results of both individual and meta-analysis research, compares the different methods used in media selection, and concludes with suggestions for how practicing teachers can select different media more effectively.

"PRESERVICE TEACHER EDUCATION: REVIEW OF A STRATIFIED CURRICULUM DESIGN"

James A. Siders, Richard Kazelskis, and Mark G. Richmond, University of Southern Mississippi

Changes in state department of education program approval measures have lead to a competency based redesign of teacher education. This paper reviews program adjustments implemented to determine curriculum areas predicting student teaching effectiveness. Adjustment to the teacher preparation program and follow-up information on the efficacy of changes will be reviewed. An information management system will be presented as a means to prepare for future changes in the program.

Three facets of a teacher effectiveness model, (1) Teaching Plans, (2) Classroom Procedures, and (3) Interpersonal Skills, and the Professional Knowledge Skills of the National Teacher Examinations were imposed on an existing teacher preparation program. Curriculum adjustments were made to address coverage deficits and/or redundancies.

Reviews of program impact were made possible by recording student performance measures on optical coding sheets for microcomputer entry. Report formats were generated according to student progress toward 15 performance competencies and the three teacher effectiveness measures. Course profiles were simultaneously compiled for formative curriculum adjustments as suggested by student performance. Profiles of 164 students were reviewed. Statistically significant ($p < .01$), positive change was determined in four professional core courses ($t = 11.13; 9.50; 35.52; 17.21$), six of the 15 competencies, and two of the three teacher effectiveness instruments.

9:00 a.m. - 9:50 a.m. TESTS (Discussion) . . . . . Shannon

Presider: Todd M. Davis, Memphis State University

Presenters: "FACTORIAL VALIDITY OF THE FENNEMA-SHERMAN MATHEMATICS ATTITUDES SCALES"

Marcia R. O'Neal, Patricia S. Ernest, James E. McLean, and S. Mark Templeton, The University of Alabama, Tuscaloosa

Many researchers and other professionals in education believe that an individual's attitude toward a subject can significantly influence performance. It is also believed that changes in attitudes can be effected through intervention. These beliefs were tested using four subscales of the Fennema-Sherman Mathematics Attitudes Scales (confidence, attitudes toward success, anxiety, and effectance motivation) and were given to 144 fifth-grade students. A factor analysis was conducted on the scales to determine if the subscales maintained their integrity.

Principal factor analysis suggested the rotation of three or four factors using the scree test and up to eight factors using the Kaiser criterion. Subsequent analyses involved the rotation of two to six factors. Simple structure was best approximated by rotating three factors. The first factor was composed primarily of items from both the confidence and anxiety subscales. The second factor corresponded quite well to the attitude toward success subscale. The third factor was composed primarily of items from the effectance motivation subscale. Results suggest that, for the fifth graders who took this test, the anxiety and confidence subscales measure the same dimension and more logically might be considered as comprising a single scale.

"A SURVEY OF PERCEPTIONS BY SCHOOL PSYCHOLOGISTS OF THE STANFORD-BINET IV"

Stephen John Obringer, Mississippi State University

Recently, the Stanford-Binet IV (SB IV) has come under much scrutiny and criticism. As the Communique (1987) pointed out, the lack of validity data and the difficulty in obtaining a technical manual has caused the National Association of School Psychologists to pass a resolution not to use the revised Stanford-Binet for eligibility/placement of students.

The purpose of this study was to survey school psychologists across the United States to determine if the revised Stanford-Binet was viewed as a viable and usable instrument for eligibility and placement of students. Also sought were the retraining efforts on the part of school psychologists to administer and interpret the revised instrument.

A brief questionnaire was mailed to 200 school psychologists across the United States. Two names per state were randomly selected from the membership booklet of the

National Association of School Psychologists. A stamped, self-addressed envelope was mailed along with the survey. A total of 94 surveys, or 48.5%, were returned.

The survey indicated that the majority of school psychologists need additional training in administering, scoring, and interpreting the test; however, few have received such training. A small number of practicing school psychologists have adopted the revised instrument in their practice or sponsoring agency. When asked to rank, in order, instruments of choice, the Wechsler followed by the Kaufman were scales of choice.

"MEASUREMENT CHARACTERISTIC OF A SHORT FORM OF THE QUESTIONNAIRE ON RESOURCES AND STRESS"

James David Sexton, University of New Orleans; Randall L. Scott, New Orleans Lighthouse for the Blind; Bruce Thompson, University of New Orleans and Louisiana State University Medical Center; and Thomas A. Wood, Auburn University

Partly as a result of recent legislation, most notably P.L. 99-457, early childhood special educators have been interested in developing ecological intervention models for young children with known or suspected handicaps and their families. This approach necessitates the use of tools designed to evaluate family coping and functioning. One particularly promising instrument for this purpose is the Questionnaire on Resources and Stress - Short Version developed by Friedrich and colleagues. Although preliminary technical data generated from research studies using this 52-item instrument have been promising, questions still remain related to its reliability and validity.

The subjects in the study were parents (n = 132) representing intact families of 66 preschool-aged children, one-half of whom were handicapped and one-half of whom were nonhandicapped, who independently completed the mailed questionnaire.

Alpha coefficients were computed for the total sample, for parents of handicapped children, and for parents of nonhandicapped children. The response data from the 132 parents were subjected to a principal component analysis followed by rotaton to the varimax criterion. Four factors accounting for 41% of the item response variance were extracted. In order to further examine the construct validity of the instrument a two-way analysis of variance of scores across family type and parent sex variables was computed.

The results in the present study suggested that the Questionnaire on Resources and Stress - Short Version may have value as a useful measure of an important ecological variable, parental stress. The measure appears to have reasonable psychometric integrity, as indicated by several reliability, factor structure, and construct validity measures.

"LATENT TRAIT MEASUREMENT CALIBRATORS FOR THE FINDING EMBEDDED FIGURES TEST"

Janet G. Melancon, Loyola University, and Bruce Thompson, Louisiana State University Medical Center

The cognitive style called field-independence has been shown to have surprising power to explain variations in diverse outcomes, including reading comprehension skills, preferences for different instructional methods, and career choices. The most widely used measure of field-independence, the Group Embedded Figures Test, has been shown to be highly reliable, notwithstanding the shortness of the measure. However, the GEFT is a supply format test which must be hand scored, and some researchers may find it necessary to have two raters score each test in order to establish that judgments were reliably made.

The present paper describes results associated with the Finding Embedded Figures Test, Research Edition, a multiple choice measure of field-independence. The latent-trait measurement model developed by Rasch was employed to evaluate the measurement characteristics of both forms of the FEFT. A total of 214 subjects completed Form A while 226 subjects completed Form B. Most items fit the measurement model, and item difficulty calibrations provided to be stable across ability groupings. The results suggested that the FEFT has potential as an alternate measure of field-independence.

9:00 a.m. - 9:50 a.m. DISSERTATION RESEARCH: AN EVALUATION WITH PROGRAM

IMPLICATIONS (Symposium) . . . . . Edinborough

Organizer: Gerald Halpin, Auburn University

Presenters: "RESEARCH METHODS AND STATISTICAL PROCEDURES UTILIZED AT AUBURN UNIVERSITY: 1983-1987"
Gerald Halpin and Glennelle Halpin, Auburn University

"INSTRUMENTS AND VALIDITY AND RELIABILITY PROCEDURES USED IN DISSERTATIONS AT AUBURN UNIVERSITY: 1983-1987"
Landa Trentham, Auburn University

"PROGRAM PLANNING AND QUALITY ASSURANCE: IMPLICATIONS FROM THE STUDY OF DISSERTATIONS"
William L. Deaton, Auburn University

"THE DESIGN AND USE OF AN INSTRUMENT TO EVALUATE RESEARCH AND STATISTICAL METHODS IN DISSERTATIONS"
Suzanne Talbert and Peggy Brown-Myers, Auburn University

Objectives of this symposium are to describe the procedures utilized in the evaluation of a random sample of dissertations, to present the findings of this evaluation, and to discuss related implications for graduate-level research preparation.

After the dissertations were identified, a 90-item ratings form was developed based upon previous investigations (Edgington, 1974; Wilson, 1980). Two of the symposium participants rated the dissertations with an interrater reliability of .82. Their work on instrument development and the rating process used are described in the first presentation. In the second presentation, instrumentation in the dissertation as well as reliability and validity issues are considered. In the third presentation, the focus is on the research and statistical procedures utilized in the dissertations. The implications of the findings are highlighted in the final presentation.

Instrument development for this investigation began with the adaptation of a checklist used in a study by Wilson (1980). Revisions were made, a pilot study was conducted, and further additions were made. The finalized instrument consisted of four sections: dissertation evaluation, on which external evaluations of significance, methodology, grammar, appropriateness, and level of general scholarship of each dissertation were recorded; design of the study; statistical techniques; and reliability and validity. Suggestions for the development of similar instruments, details of the rating process, and recommendations related to the achievement of high interrater reliability are offered.

The dissertations were separated into four groups for analyses of instrumentation and reliability/validity. Used in group 1 ($n = 15$) were both published and student-developed instruments, in Group 2 ($n = 47$) only published instruments, in Group 3 ($n = 22$) student-developed instruments only, and in Group 4 ($n = 14$) no instrumentation. Across groups, reliability concerns were addressed more often than were validity concerns. A MANOVA analysis, using dissertation group as the independent variable and the five factors on which the dissertations were externally evaluated as multiple dependent variables, showed significant differences ($p < 0.03$) across groups. Dissertations in which new instruments were developed were generally rated more positively than were dissertations in the other three groups, even though reliability/validity evidence for the new instruments was presented in fewer than 25% of the dissertations.

Analyses of the research methods and statistical procedures utilized in the dissertations revealed that over 45% of the investigations were correlational, and approximately 35% were experimental or quasiexperimental. In 93% of the dissertations, quantitative methodologies were employed, while in only 7% of the dissertations were qualitative approaches used. Analysis of variance, multiple regression, and multivariate procedures were the most frequently occurring methods of statistical analysis. Nonparametric statistics were utilized in only one dissertation.

Implications for program and curriculum planning are drawn from the results of the study. The issue of quality assurance is addressed through a detailed analysis of strengths and weaknesses identified in the dissertations. Suggestions are made about how the analysis of dissertations completed in one department may be used to initiate comprehensive reviews of doctoral programs in all departments in a college of education. Potential uses of the study are discussed with particular attention given to NCATE standards, self-studies, university reviews, and external reviews of doctoral programs.

THURSDAY, NOVEMBER 10, 1988

10:00 a.m. - 11:15 a.m.	MSERA KEYNOTE ADDRESS. . . . . Scots
Presider:	Carolyn C. Williams, Mississippi State University
Speaker:	"Getting the Hay Down to the Ponies: The Researcher's Dilemma." Phillip C. Schlechty, Jefferson County School Board of Education, Louisville, KY
11:20 a.m. - 12:20 p.m.	GRADUATE STUDENT DISCUSSION WITH KEYNOTE SPEAKER (Limited to Graduate Students) . . . . . Scots
Presider:	Carolyn C. Williams, Mississippi State University
Speaker:	Phillip C. Schlechty, Jefferson County School Board of Education, Louisville, KY
11:30 a.m. - 12:30 p.m.	TEACHER CERTIFICATION (Discussion) . . . . . .Aberdeen
Presider:	Richard Kazelskis, University of Southern Mississippi
Presenters:	"DEVELOPING PERFORMANCE STANDARDS FOR SELECTED ETS SPECIALTY AREA TESTS USED AS A BASIS FOR INITIAL TEACHER CERTIFICATION ENDORSEMENT IN ARKANSAS"
	Fred K. Bellott, Harry L. Bowman, and John R. Petry, Memphis State University

The Arkansas Department of Education has established minimum scale scores on NTE Specialty Area Tests for 25 certification endorsement areas. Additional tests from ETS have been identified for similar use in five other endorsement areas. These secured tests need to be validated and have appropriate minimum qualifying scores established for their respective endorsement areas.

Professional judgments by a stratified selection of professional personnel from teacher education institutions and from local public school were focused on three areas: content review (how the tests related to college curriculum), relevance to job performance, and estimation of knowledge expected of minimally qualified endorsement applicants. These judgments by knowledgeable individuals were combined on a statewide basis to determine content appropriateness, job relevance, and estimated performance levels of minimally qualified personnel for each of the ETS tests. It is recognized that this strategy may produce differential effects for the graduates of different institutions.

Data generated by and collected from the several panels and reported, with interpretive analyses, were reviewed by the Standards Committee. Recommendations were developed regarding (1) the validity of the instruments for use in Arkansas and (2) minimum qualifying scores based on a review of the data from the three task groups.

"ALTERNATIVE METHODS OF CERTIFICATION: ISSUES AND SOLUTIONS FOR MISSISSIPPI TEACHERS"

Susan Hart-Hester, Mississippi State Department of Education, and Cynthia Ann Ward, University of Southern Mississippi

The Education Reform Act (1982) has had an impact on virtually every aspect of education in Mississippi. Teachers are required to pass competency evaluations and participate in staff development programs in order to maintain their certification. However, as teachers are called upon to meet the challenge of implementing long-awaited reform, it becomes apparent that the state must continue to investigate and develop methods which will enable Mississippi to provide a body of qualified teachers to meet the increasing demands of a varied student population. The present study provides current data concerning Mississippi's efforts to meet the growing demand for qualified teachers: (1) alternate route certification and (2) add-on endorsements. Additionally, the issue of teaching out-of-field is explored and district's attempts to remedy this problem are discussed. Findings indicated that first-year provisional teachers who pursued alternate route certification scored higher on the National Teacher Examinations than did their colleagues who had been through teacher education programs. Generally, certified teachers

adding on endorsement areas were white females with an average of nine years teaching experience. The most commonly added areas were Kindergarten-3rd grade, 4th-8th grade, and educationally handicapped. The implications of the research findings and recommendations for future efforts are discussed.

"THE PERFORMANCE OF REGULARLY AND IRREGULARLY CERTIFIED TEACHERS OF MATHEMATICS"

Hugh I. Peck, Mississippi State University

Recent events are encouraging SEAs and IHLs to carefully review their teacher preparation and certification processes. Policy decisions provide irregular routes into teaching that supplement the traditional route. Mathematics is a subject area that is significantly impacted by irregularly certified teachers. Little is known about its impact.

Based on the assessment of teachers' achievement, performance, and attitude, and using discriminant function analysis, this research sought to determine if mathematics teachers could be accurately identified as regularly or irregularly certified. Data for this research were available through a pilot study grant from the SEIL to MSU. Fifty-two of 123 beginning mathematics teachers in 1985 or 1986 participated in this research project. The data used for this discriminant function analysis were a subset of a major data base.

Seven attained scores were used as variables in the initial discriminant analysis: NTE - General Knowledge, Professional Knowledge, and Mathematics Specialty Area Test; the Mississippi Teacher Assessment Inventory; and three Soares surveys - Teacher Self Assessment, Teacher Perceived Assessment, and Mathematics Attitude.

Results of the analyses indicated that more than 90% of the teachers were accurately identified as regularly or irregularly certified based on three of the seven variables. Information identifying regularly or irregularly certified teachers is vital. Results of this research are important to SEAs and IHLs.

11:30 a.m. - 12:30 p.m. CURRICULAR IMPLICATIONS OF STUDENT AND TEACHER INTERESTS AND PERCEPTIONS FOR GIFTED EDUCATION (Training). . . . . Bagpipe

Trainers: Kelly G. Thompson and Imogene Ramsey, Eastern Kentucky University

The objectives of this session are fourfold. Group participants will examine definitions of giftedness, characteristics of the gifted, characteristics of teachers of the gifted, and implications of the preceding for teacher education.

Comparison and integration of information gleaned from two surveys conducted during a six-year period will be shared. One of the surveys was designed to elicit from gifted students their views on curriculum, career choices, hobbies, leisure-time activities, and teacher characteristics. The second survey was designed to elicit from teachers of the gifted their views regarding characteristics of gifted students, special concerns related to curriculum, and characteristics necessary for teachers of the gifted.

Group participants will be given opportunity to compare their perceptions of gifted students and effective teachers of the gifted with those of the survey populations. Concluding discussion will relate information from the surveys to implications for gifted curricula and teacher education.

11:30 a.m. - 12:30 p.m. ATTITUDES (Discussion) . . . . . Ruskins

Presider: Carol P. Etheridge, Memphis State University

Presenters: "ATTITUDES OF THE ALUMNI TOWARD SELECTED ASPECTS OF A PRIVATE JUNIOR COLLEGE"

Warren A. Land and Julia J. Haney, Mississippi State University

The specific objectives of this study were to determine (1) the attitudes of the alumni toward the philosophy and purposes of the college, (2) the attitudes of the

alumni toward the opportunities provided by the college for positive personal growth, (3) the attitudes of the alumni toward faculty, curriculum, and student activities, (4) the primary reason indicated for attending the college, and (5) which of the selected personal characteristics were associated with positive attitudes toward the college.

The subjects were alumni of a junior college in North Mississippi. The data were gathered through the use of a questionnaire; 232 questionnaires were returned in usable condition.

The alumni exhibited positive attitudes toward philosophy and purposes, and the faculty, curriculum, and student activities, and moderately positive attitudes toward opportunities for positive personal growth. Location of the college was indicated most often as the primary reason for attending.

The two personal characteristics found to be significantly related to positive attitudes toward the college at the .05 level were (1) year attended and (2) transfer student from another college.

"PROMOTION AND RETENTION PRACTICES AND ELEMENTARY SCHOOL TEACHERS' AND PRINCIPALS' ATTITUDES AND OPINIONS TOWARD RETENTION IN TWO CROSS-NATIONAL SAMPLES"

Tony-Adams O. Aburime and T. Lee Napier, Jackson State University

The problem of this study was to determine and compare data on promotion-retention practices and assess elementary school teachers' and principals' attitudes and opinions toward grade retention in two cross-national states, Mississippi (USA) and Bendel (Nigeria).

Data on promotion and retention practices obtained from 55 schools were statistically examined in terms of state (country) where school is located and the location of the school within the state. Data on attitudes and opinions obtained from 530 elementary school educators were examined in terms of respondents' basic classification variables of position, experience, educational qualification, sex, state (country) where school is located, and location of school within state.

The results indicated that, aside from having written policies regarding promotion and retention, a significant majority of the school districts that provided the subjects for this study were pro-retention. Such policies were found to be overwhelmingly supported by the teachers and principals in the two states.

Significant differences in opinions were found to exist between or among the groups formed on the basis of respondents' classification variables. Respondents in Mississippi believed that retention has significant academic benefits and does not cause children to experience socio-emotional and behavioral problems. Conversely, respondents in Bendel expressed that retention has several negative effects on children's socio-emotional and behavioral well-being and often does not serve the purposes for which it is practiced in their schools. Regarding retention decisions, the teachers in Mississippi recommended a major involvement for the parent of the child and reserved the responsibility of the final decision to themselves. Besides attaching very little importance to the role that the parent should play in retention decisions, an overwhelmingly majority of the teachers in Bendel also abdicated the responsibility of the final say to the school principal. Findings such as these suggest the need for caution in adopting or recommending educational ideas or practices across international or cultural boundaries.

"MOTIVATION OF STUDENTS IN MIDDLE SCHOOL"

William F. White and Michael Case, Lamar University

Research clearly supports the statement that students' perceptions affect school achievement. Does the perception of home environment motivate the students' learning in school? The My Education (ME) scale was administered to 2,833 middle school students. Responses were factor analyzed by the principal components method. Three factors with eigenvalues greater than one were extracted and rotated to the varimax. The first factor was labeled "my teacher," contained 22 items, and contributed 12% to the cumulative variance. The second factor added only 4% to the total variance and was called "my

image." The third factor contributed another 4%, also, and was identified as "classroom dynamics." No factor contained sufficient items relating to perceptions of home, family, or parent involvement. In the search for an instrument to identify the perceptions and motivations of family-home environment, the ME scale appears to fall short.

11:30 a.m. - 12:30 p.m. MATHEMATICS (Discussion) . . . . . Shannon

Presider: William A. Person, Mississippi State University

Presenters: "ENJOYMENT AND VALUE: MATH ATTITUDES OF BUSINESS AND ELEMENTARY EDUCATION MAJORS"

JoAnna Paterno Dickey and Kenneth Clawson, Eastern Kentucky University

This investigation compared the attitudes of business and elementary education majors on enjoyment and value of mathematics. Fifty elementary education majors and 58 business majors participated. The mathematics attitude questionnaire contained two sections of questions with eight questions on enjoyment of mathematics and eight questions on the value of mathematics. The responses were on a Likert scale of agreement to disagreement.

The t-test was used to compare how students enjoy and value mathematics and how the elementary and business majors differed in their attitudes toward mathematics. The attitude of enjoyment of mathematics was not statistically different at the .05 level between business and elementary education majors. However, elementary education majors valued mathematics significantly higher than did business majors. It was also found that both elementary education and business majors value mathematics to a signficantly higher degree than they enjoy mathematics. Male and female business students showed no significant gender differences on valuing and enjoying mathematics.

These findings can help college instructors better address the concerns of their students and use their attitudes as motivating factors.

"DIFFERENCES IN MATHEMATICS ANXIETY WHEN RACE AND GENDER ARE CONSIDERED"

Sherrill M. Evans, Mississippi State University

The educational reform movement of the 80s has created tougher graduation requirements. For example, students are presently required to complete three units of mathematics. In the past, most of the high school mathematics classes have been composed mostly of white males. One reason could be attributed to mathematics anxiety suffered by white females, black females, and black males.

The purpose of the study was to determine whether there was a difference in mathematics anxiety when race and gender are considered. Four null hypotheses were tested.

The sample was randomly-selected seventh-, eighth-, and ninth-grade students in an east central Mississippi city. There were 298 subjects, of which 72 were white males, 63 were white females, 70 were black males, and 93 were black females. Each subject was administered the Mathematics Anxiety Rating Scale-A.

Significantly higher mathematics anxiety scores were obtained for white females and black males as compared to white males. The results of this study suggest that schools should create staff development programs to enlighten teachers concerning mathematics anxiety and to develop programs to prevent or reduce mathematics anxiety in those identified.

"THE EFFECTS OF TRAINING ON CREATIVE THINKING AND MATHEMATICS PROBLEM SOLVING"

Barbara Grayson Love, University of Mississippi Medical Center

The effect of training to facilitate the use of cognitive strategies on creative

thinking and mathematical problem solving was addressed in this study. One specific aspect of creative thinking, restructuring, was the focus of training because of its proposed importance in creativity and certain aspects of mathematical problem solving.

The Solomon four-group research design was employed. Subjects were 142 fifth and eighth graders randomly assigned to one of four conditions: pretest-training-posttest, pretest-no training-posttest, training-posttest, and no training-posttest. Figural Form B for the Torrance Tests of Creative Thinking (TTCT) served as the pretest. The 45-minute training session was designed to facilitate cognitive strategies for restructuring problems. All subjects were administered Figural Form A of the TTCT and six math problems requiring restructuring. Training was not found to be effective in increasing either the number or quality of creative responses or the number of math problems solved. On the TTCT, Grade 5 students scored higher on fluency, flexibility, and originality, while Grade 8 students received higher scores for elaboration and extending/breaking boundaries. Eighth graders solved significantly more math problems than fifth graders.

11:30 a.m. - 12:30 p.m. HANDICAPPED (Discussion) . . . . . Edinborough

Presider: Adrianna Hayes Francis, Eastern Kentucky University

Presenters: "A SOCIAL CONSTRUCTION MODEL OF DISABILITY AS AN ALTERNATIVE TO THE MEDICAL MODEL"

Daniel E. Cates, Indiana University

The medical model predominating the schools' conception of disability contains basic theoretical underpinings which can have detrimental effects leading to increasingly rising rates of students classified as handicapped. Realizing that the standards of deviance employed to determine a "handicap" have been created as social artifacts by particular groups holding decisions making power, one finds the medical model of disability to be unfitting for decisions surrounding the labeling of students and placement in special services. A social construction model of disability is more appropriate in an attempt to remedy the faulty referral-to-treatment sequence which exists currently. Along with special consideration of the organizational structure of schools, the social construction model provides an improved understanding of the labeling and special services placement decision-making process. Transformation from the medical model to a social construction model of disability has been acclaimed to lead to fewer classifications and could have broad implications regarding the practice of labeling and placing students.

"THE EFFECTS OF A SHIFT IN BACKGROUND EVENT RATE ON THE VIGILANCE PERFORMANCE OF THE MENTALLY RETARDED"

Alys M. Hayden and Phillip D. Tomporowski, The University of Alabama, Tuscaloosa

The purpose of the present research was to evaluate the effects of memory demand through stimuli presentation rate on the vigilance performance of mentally retarded and nonretarded adult observers.

Retarded and nonretarded adult observers performed four, 60-minute visual vigilance tasks in which single digits were presented sequentially and successively at either a high rate (30 events per minute) or at a low rate (15 events per minute). The target event in all tests was a skipped digit. During two tests, the event rate presented during the initial 30 minutes was shifted without warning to the alternate event rate.

The results of the study indicated the presence of a vigilance decrement in the performance of retarded observers during both event rate conditions. Retarded adults detected fewer targets and made more false alarm responses than did nonretarded adults. Also, the false alarm responses of retarded observers were related to the shift in background event rate.

Vigilance performance of retarded adults is believed to be influenced by memory demands present in vigilance tasks. Observation of the performance of retarded individuals on vigilance tasks, which require monitoring of successively presented stimuli, has important practical applications for the education and training of the retarded.

"TIE: CONDITIONS OF EMPLOYMENT FOR THE HANDICAPPED"

Debra Petty and Sonja R. McNeely, The University of Tennessee, Knoxville

Society has experienced limited success with employment of the handicapped. Research has not found descriptors of individuals and employments that "fit." Since July 1, 1986, TIE has addressed these critical issues to provide assistance in successful work-force placement of handicapped individuals.

Four centers serving handicapped populations provided the work force. TIE offered different employments and four types of supported work models: mobile work crew, job coach, job partner, and enclave. Wages, trainer contact hours, work time, and length of employment were calculated to identify the most successful model. Each client provided pertinent personal information. There were two client groups: those employed six months or more (n = 43) and those employed less (n = 103). Data were analyzed for patterns or commonalities. Profiles of "typical" individuals in each group were formulated. Information included age, sex, level of handicap, multiple handicaps, IQ, job support model, type of employment, residence, mode of transportation, amount and type of public assistance, and work history.

All clients were followed for two years. Causes and results of all job changes and terminations were noted, including wages, hours, job duties, and hours of trainer contact. Study results will assist in the long-term job placement of handicapped individuals and their successful work-force integration.

"PREPARING PRESERVICE TEACHERS TO TEACH SECONDARY-AGED STUDENTS WITH HANDICAPS"

Lynne S. Arnault and Dorothy A. Black, Mississippi State University

The purpose of this study was to develop and validate the evaluation instrument, Beginning Work Rating Scale, and to investigate the attitudes of secondary aged learning disabled students and secondary-aged nonhandicapped students toward readiness for beginning work.

The instrument consists of 45 items designed to assess the respondents' attitude toward readiness for beginning work in the following categories: social/emotional readiness, self-evaluation, work habits, punctuality, and work interest. A Likert-type scale was utilized with which the student was to rate the behavior items as follows: 1--not at all, 2--seldom, 3--occasionally, 4--most of the time, 5--all of the time, and NA--does not apply.

The items on the scale were derived from a review of the literature and were reviewed by selected authorities.

The subjects were 100 nonhandicapped students and learning disabled students who were classified as seniors in the Choctaw County Schools. The students were asked to respond to the items on the instrument. The multivariant analysis of variance was used to compute the data.

Significant differences were found on all five subscales. The findings indicated a need for preservice teachers to be trained in better preparing secondary-aged handicapped students for readiness for beginning work.

1:00 p.m. - 1:50 p.m. EVALUATION (Discussion). . . . . .Aberdeen

Presider: Barbara M. Goodnite, Mississippi State University

Presenters: "TEACHER EDUCATION EVALUATION: A LONGITUDINAL STUDY"

Tom L. Wagner, Charles Hulick, and Truman Whitfield, Murray State University

A multi-departmental committee to design and implement an evaluation of the

teacher education program. This paper will report on (1) how the evaluation process began, (2) what decisions and problems had to be faced both before and after the process began, (3) what preliminary findings were obtained, and (4) the restructuring both of classes and of the broader program.

A task group was appointed to identify these common "cores" of all the teacher education programs. Initial data gathered included attitudes toward teaching, critical thinking skills, a test of basic skills, personality measures, a test of the teaching effectiveness knowledge base, and demographic information. The American College Test Comprehensive test began being used in the fall, 1988.

Preliminary findings, such as the fact that entering teacher education students score slightly higher on the knowledge of effective teaching strategies and score as well or better than other students on critical thinking skills, have already had an effect on the way faculty view entering students and on some aspects of advising students. Other examples of restructuring as a result of the evaluation program include faculty beginning to develop pre- and posttests for individual courses, considerable discussion on the sequencing of courses, modifications of field experiences, and a careful examination of and necessary readjustments to ensure identified and incorporated into the program.

"A STUDY OF THE RELATIONSHIP BETWEEN PHYSICAL SKILLS AND ACHIEVEMENT IN READING, MATHEMATICS, AND LISTENING COMPREHENSION"

Josey H. Templeton, Mississippi State University; Robbie N. Jones, Starkville (MS) School District; and Herbert M. Handley, Mississippi State University

The problem in this study was to determine if a relationship existed between physical skills and achievement in reading, mathematics, and listening comprehension of fifth-grade students.

During 1987, 334 fifth-grade students in the Starkville School District were evaluated on 20 physical skills and the Stanford Achievement Test. The physical skills test battery included 10 motor skills and 10 sports skills. The academic scores used were the total scores in reading, mathematics, and listening comprehension.

Test data were analyzed through the use of a regression analysis model. Achievement in reading was predicted by railwalk, left-hand grip strength, golf putting, sit and reach flexibility, football kicking, tee ball batting, and basketball catching. Achievement in mathematics was predicted by golf putting, railwalk, sit and reach flexibility, left-hand grip strength, basketball catching, football kicking, tee ball batting, basketball lay-ups, and the broad jump. Achievement in listening comprehension was predicted by golf putting, left-hand grip strength, railwalk, broad jump, basketball throwing, basketball lay-ups, basketball dribbling, bean bag target throwing, and football kicking.

There were four physical skills which were common predictors for each of the three areas of academic achievement. The skills were golf putting, left-hand grip strength, railwalk, and football kicking. These findings might be considered in physical education curriculum planning because of their potential influence on academic achievement.

"PROJECT ST*R - A STATEWIDE LONGITUDINAL CLASS-SIZE STUDY: AN UPDATE WITH GRADE ONE RESULTS"

M. Nan Lintz, The University of Tennessee, Knoxville; Charles M. Achilles, University of North Carolina at Greensboro; and Helen P. Bain, Tennessee State University

In May, 1985, Tennessee established Project ST*R (Student-Teacher Achievement Ratio), a longitudinal study of class-size effects on student learning and development, grades K-3. In 1987, ST*R staff presented first-year (kindergarten) results. This paper presents second-year results and study progress.

In 1985, 42 districts and 79 schools began Project ST*R. Class size (treatment) included small class (S), or 1:15; regular class (R), or 1:25; and regular with full-time aide (RA). Standardized and criterion tests record pupil achievement; teacher logs,

questionnaires and observations provide additional data. ST*R employs an in-school design [each school has (S), (R) and (RA)] which, for example, controls for differential funding, and dynamic (or weak) principal.

First-year (K) results favored pupils in (S), but were not highly significant. In grade one, pupil gains strongly favored (S) and (RA), with (R) doing least well. Analyses included ANOVA, ANCOVA, t-tests, and X^2. A higher proportion of (S) than (R) classes achieved mastery on criterion-referenced tests, and (S) average scores on Stanford tests exceeded (R) and (RA).

The paper reviews study progress, contexts, and plans. Conjecture about results will be part of the question/answer format. ST*R (1988-89) entered its fourth year following the pupil cohorts.

"STATEWIDE RETENTION IN HIGHER EDUCATION: IF YOU CAN'T KEEP 'EM, YOU CAN'T TEACH 'EM"

Brian E. Daly and Gary Breegle, Kentucky Council on Higher Education

The purpose of this study was to determine student retention patterns in a public higher education system, identify factors that have the most influence on retention, target influential factors, and develop strategies to increase student retention rates.

A variety of demographic, academic, and personal factors were studied to determine their influence on retention. Data were drawn from statewide computer data files maintained by the Council on Higher Education (CHE) and from annual American College Testing (ACT) data tapes. The CHE data sets are from enrollment and degrees awarded tapes provided each semester by the colleges and universities. The ACT tapes provided specific pre-enrollment data on each student's personal and academic background. A master retention data set was established which follows students through six years of higher education.

This data set served as the basis for constructing a retention matrix subject to chi square analysis and for performing discriminant analyses on the data to determine the best predictive paths toward retention. The variables were analyzed to answer the following questions: (1) Which students are most likely to be retained at each institution and systemwide? (2) Which students have non-traditional attendance patterns? (3) Are there reliable predictor variables for estimating the probability for retention of a student at each institution and systemwide? (4) Using like groups, are there differences in institutional retention rates? (5) What are some possible retention strategies that the state should consider?

Research has demonstrated that certain variables appear to influence retention rates. A statewide perspective is expected to show similar patterns. Retention rates will differ among the various institutions because of geographic, demographic, and institutional environment differences.

1:00 p.m. - 1:50 p.m. MICROCOMPUTERS (Discussion). . . . . Bagpipe

Presider: Linda Coyle, University of Central Arkansas

Presenters: "COMPUTER ATTITUDES OF NOVICE AND EXPERIENCED TEACHERS: FAMILIARITY DOES NOT BREED CONTEMPT"

Louis A. Franceschini, and Carol Carter Reece, Memphis State University

Two groups of 36 teachers--one consisting entirely of teacher interns, the other of teaching veterans with over 10 years of experience--were surveyed as to their attitudes toward computers and their feelings about themselves as they interacted with the computer. Osgood's Semantic Differential technique was used to make the assessment, with each scale, within two sets of 15 scales, spanning nine intervals. Nouns and adjectives anchoring the scales were a mixture of traditional items, terms drawn from computer vernacular, and miscellaneous items.

When the data were analyzed according to level of teaching experience, few

significant differences were obtained. Considered as novices and veteran teachers, according to the results of independent t-tests, the two groups appeared to greet the computer with equally restrained enthusiasm and similar levels of self-assurance and esteem. When only computer novices within the groups were retained in the analysis, the findings were nearly identical. However, when novice and experienced computerists were opposed across groups, differences began to multiply. Regardless of years of service, experienced computer users were consistently more positive towards the machine. More importantly, the experienced user felt better about himself--smarter, bolder, and more capable.

"SURVEY OF COMPUTER USAGE IN LOUISIANA SCHOOLS"

Peggy C. Kirby, Dave Wilson, and Karen Smith-Gratto,
University of New Orleans

Factors that determine the success or failure of computers in the curriculum include the availability of quality hardware and courseware as well as adequate staff development and commitment to computer implementation (Hasselbring, 1984; Becker, 1985). A survey of 172 randomly-selected public schools in Louisiana was conducted in the spring, 1988. Data were gathered concerning hardware, software, funding sources, use, location, and access.

Available resources compare to national averages of 1985 indicating a lag in acquisition of equipment. Inservice computer training was offered to the entire faculty in only 7% of the schools. Over half of the secondary schools and 96% of the elementary schools had no teacher certified in computer science.

Special education and gifted students had greater access to computers than regular classroom students. Unfortunately, the number of computers available in any school was directly related to the socioeconomic status of the student population.

In addition to presenting descriptive information about the state's technological resources in education, this research suggests that measures must be taken to redress the growing gap in educational resources available to the economically disadvantaged. Furthermore, the question of access to available resources, particularly for the "typical" student, must be addressed.

"SMALL, MEDIUM, OR LARGE?: RESEARCH-BASED GUIDELINES FOR DESIGNING COMPUTER-BASED LESSONS THAT FIT THE NEEDS OF INDIVIDUAL LEARNERS"

Jacqueline K. O'Dell, Steven M. Ross, and Gary R. Morrison,
Memphis State University

Enhancing readability may be the most crucial challenge when designing computer-based instruction (CBI) text screens (Heines, 1984) because learners' achievement is influenced by the readability of the text that presents the lesson; it is important that text format and design elements do not decrease readability (Cohen, 1983). Secondly, chunking text into paragraphs, spacing between lines, and using upper- and lower-case letters have been suggested as appropriate design strategies (Grabinger, 1984). While these design strategies provide an organized and structured appearance, their actual effect on readability and learning are unknown. Others suggest that reducing the amount of text per screen increases reading rate, accuracy for recall, and comprehension (Gregory and Poulton, 1970; Heines, 1984; Kolers, et. al., 1981).

The present research investigated two methods for enhancing reading and learning from computer screens. The first method, low-text density, is achieved through a procedure for reducing length and redundancy in expository text by reducing sentences to main ideas. A decrease in instructional time without a corresponding decrease in learning was found for the low-text density variable. Building on results from the first study, learner preference for learning from four ratios of screen density was compared. Screen density refers to the amount of space allocated to present text characters on one screen; thus, a reduction in displayed text characters proportionately lowers screen density. Findings indicated that learners consistently prefer to learn from a moderately low-screen density level, seemingly to achieve a balance between screen clarity and total number of frames required to present the complete lesson. This finding is in contrast to earlier research (Grabinger, 1984), where judgments were made of artificial text presented on single frames. These findings add support to earlier research and suggest the advantages

of using low-text and low-screen density as design variables for CBI deserve further consideration.

Implications for designing narrative CBI lessons using low-text and low-screen density are presented as well as the procedures for generating and using low-text and low-screen density to design CBI lessons.

"THE EFFECTS OF VARYING METHODS OF TEXT PRESENTATION IN COMPUTER-BASED INSTRUCTION"

Deborah Lawson McCormick and Paul L. Jones, Chief of Naval Technical Training

In recent years, authoring systems have become more powerful and easier to use. As a result, many teachers are becoming receptive to the idea of creating their own computer-delivered lessons. However, the video screen is a new instructional medium for teachers with completely new rules about how effective instruction is delivered and with features which have previously been unavailable to the classroom teacher. Many questions about how computer-based instruction should be designed and delivered need to be addressed.

The present study investigated two methods that a teacher might select in attempting to increase the effectiveness of a lesson consisting entirely of text presentation. Method 1 utilized the highlighting feature available in many authoring systems. Key ideas were presented in contrasting color. Method 2 preceded important ideas with questions designed to focus the student's attention on important information. A control group received the lesson with no special features used.

Preliminary analysis of group means indicated no significant main effects. However, results of analysis using ability level of the student as a second independent variable suggested that the effectiveness of the presentation method may be a function of students' ability levels. Implications of these findings are discussed.

1:00 p.m. - 1:50 p.m. PERSONALITY CHARACTERISTICS (Discussion) . . . . . Ruskins

Presider: Cordelia Douzenis, Memphis State University

Presenters: "ANALYSIS OF PERSONALITY CHARACTERISTICS OF JUNIOR HIGH, HIGH SCHOOL, AND COLLEGE ADOLESCENTS"

Carolyn C. Minder and Ronald T. Santana, Northeast Louisiana University; Frank Bennett, Delhi Guest Home; and Charles Minder, Northeast Louisiana University

This study was designed to determine whether significant differences exist in personality profiles of adolescents of three different educational levels: junior high, high school, and college. Subjects ($n = 1,056$) were administered the Adolescent Multiphasic Personality Inventory (AMPI), a 133-item self-report personality inventory which yields scores for three validity and 10 clinical scales. Data were analyzed using multivariate analysis of variance with scale scores as dependent variables and level in school as the independent variable.

Two statistically significant multivariate roots were derived from the data: canonical correlation, root I = .34, $F(20, 2,074) = 8.20$, $p < .01$; canonical correlation, root II = .17, $F(9, 1,038) = 3.51$, $p < .01$. The first root measured psychopathic deviance, paranoia, and introversion/extroversion. The second root measured depression and feminity/masculinity. Inspection of cell means associated with statistically significant univariate F-ratios revealed that scores of high school students were higher than were those of other subjects on the antisocial measures of psychopathic deviance and paranoia. These findings suggest that the traditional clinical view of transitory adolescent maladjustment may be more a characteristic of high school students than of all adolescents.

"AGE AND GENDER DIFFERENCES IN MOTIVATIONAL ORIENTATION"

Millicent H. Abel, University of Louisville

This study examined age and gender differences in intrinsic versus extrinsic motivation in the classroom. Further analyses included examining the relationships between gender, intrinsic versus extrinsic motivation, and academic achievement.

The subjects were children in the third, fifth, seventh, and ninth grades. A scale measuring intrinsic versus extrinsic motivational orientation was group administered. It is composed of three motivational subscales and two cognitive-informational subscales. Reading and math achievement scores were obtained from the children's permanent school files.

A significant age effect was found on two subscales. Boys were significantly more intrinsic than girls on three subscales. A subsample of high achievers and low achievers was formed based on reading and math achievement scores. High achievers were significantly more intrinsic than the low achievers. Overall, boys were more intrinsic than girls; no interaction existed between achievement level and gender. Multiple regression revealed gender differences in the regression equations.

This study revealed that boys were more intrinsically motivated. High achievers, however, were more intrinsically motivated than low achievers regardless of gender. Results indicate that girls' motivational orientation on the subscales affects reading and math achievement differently than boys' orientation.

"THE PASSAGE THROUGH PSYCHOLOGICAL SEPARATION DURING EARLY ADOLESCENCE"

Daniel E. Cates, Joan L. Prentice, and Clayton W. Mash, Indiana University

The literature describing the separation-individuation process, particularly during adolescence, recounts the importance of a person's detachment from infantile object ties, especially parents. Healthy resolution at this separation phase, while having been shown to relate to personal adjustment and later academic success, does not occur smoothly for all individuals. Developmental impasse can occur as a result of an individuals' failure to break from the parental bond in an adequate and fitting manner. Several aspects to a complete and healthy separation phase during adolescence have been identified as essential. Faltering in one of these areas relates to particular problems later for the individual, and the importance of the separation phase for counseling services, primarily for late adolescence, has been documented.

The literature is rich and can provide useful knowledge of early adolescence, also. Examination of the separation phase during early adolescence seems pertinent in light of heightened intensity of peer relations, pubertal changes, and changes in family structure. A review of the literature pertaining to the separation of early adolescents, and the types of problems following unsuccessful separation as they relate to the broad individuation process, provides valuable information and offers functional implications, especially for those involved with adolescents experiencing stressful intervals in the overall adolescent passage.

"IMAGINARY AUDIENCE AND PERSONAL FABLE: CONSTRUCTS IN SEARCH OF A THEORY"

Joan L. Prentice, Daniel E. Cates, and Clayton W. Mash, Indiana University

The Imaginary Audience (IA) and Personal Fable (PF) are useful constructs no longer firmly anchored to a theoretical base. The IA and PF were derived from Piaget's theory of adolescent egocentrism. According to this view, the IA and PF are first made possible by the new powers of hypothetical thinking which emerge during early formal operations and are later diminished by the consolidation of formal operational thought. Research has shown developmental progression with age, and descriptions of IA and PF as adolescent egocentric phenomena are found in virtually all textbooks on adolescent development. Beginning in 1984, however, several studies have found that the theoretical derivations are flawed: IA and PF are not related to formal operations. As an alternative to the adolescent egocentrism model, Selman's model of interpersonal understanding has been examined in relation to the emergence and decline of IA and PF. The arguments favoring Selman's theory of social cognitive development as a viable explanation for IA and PF are strong. The hypothesized relationships between the theory and the constructs remain to be empirically tested.

THURSDAY, NOVEMBER 10, 1988

1:00 p.m. - 1:50 p.m. ADMINISTRATION/SUPERVISION (Discussion). . . . . Shannon

Presider: Brookes Walthall, Western Kentucky University

Presenters: "POWER - ITS ROLE IN EFFECTIVE SCHOOL LEADERSHIP"

Susan K. Kappelman, Jefferson Parish (LA) Schools, and Charles L. Faires, The University of Tennessee, Knoxville

The purpose of this paper is to determine if the literature on effective schools' leadership and on administrative power provide similar conclusions. Strong aministrative leadership is a correlate of effective schools. The literature on administrative/educational leadership and the literature on effective schools reports the growing importance and impact of the principal on school environment and learning processes. Studies, as early as 1939, of the school principal, as educational administrator and leader, provided definitions of the leader of informal and formal organizations. The concept of power is evident in human organizations. Research on organizational power was influenced by French and Raven when they published an instrument based on Lewin's constructs measuring the type of power exerted by a leader. Later, principals were examined by Ringrose to determine their power base as assessed by teachers, and significant findings showed principals exerted either "expert" or "legitimate" power. Kappelman also found principals to use "expert" power to influence behavior of faculty and staff. Educational leadership training and principal selection will be strengthened by training and choosing administrators who demonstrate certain power characteristics. Power is an inevitable construct, and learning who has it and how it can be effectively utilized in educational settings are essential.

"THE RELATIONSHIP BETWEEN TEACHERS' PERCEPTIONS OF PRINCIPALS' SUPERVISORY BEHAVIOR AND TEACHERS' PREFERRED SUPERVISORY BEHAVIOR IN SELECTED SOUTHERN PUBLIC JUNIOR HIGH SCHOOLS"

Betsy B. Ward and Walter E. Sistrunk, Mississippi State University

The purpose of this study was to investigate the differences between public junior high school teachers' perceptions of principals' actual supervisory behaviors and their preferences for supervisory behaviors. The Supervisory Behavior Description Questionnaire (SBDQ), Form 1 was used in this study.

Data were gathered for the four subscales of Curriculum Development, Instructional Organization, Staff Development, and Evaluation of Instruction. The data collected were used to answer research questions about the actual and preferred responses for each of the four subscales and for each of the three dimensional scores within these subscales: Directive, Collaborative, and Nondirective.

Questionnaires were sent to 480 teachers in six states: Alabama, Arkansas, Louisiana, Kentucky, Mississippi, and Tennessee. Useable responses were received from 183 teachers. One-way analysis of variance and factorial analysis of variance were used in the statistical analysis of data.

Analysis of the data indicated that respondents most often preferred that their principal behave in a collaborative manner rather than in a directive or nondirective manner. When the variables of state of employment, subject area, gender, and race were considered, race was the only variable where there was a significant difference. Caucasians preferred less collaboration during evaluation of instruction.

"SCHOOL IMPROVEMENT PLANS AS A METHODOLOGY FOR LEADERSHIP DEVELOPMENT"

Mary Deborah Edwards, East Tennessee State University

Do school improvement plans intended to expand participatory management in local site management procedures demonstrate usefulness in leadership development?

The principal methodology included an analysis of the action plans and progress reports for 21 elementary, middle, and high schools that were supported as part of Leadership in Educational Administration Development (LEAD) activities in Tennessee and actual site observations by the investigators. The sample consisted of leaders in eleven

elementary, seven middle level, and five high schools geographically scattered about Tennessee. Administrators were operating development plans mandating activities to improve climate and organizational development concerns. Periodic reports were submitted to summarize progress on specified skill improvement promised in their action plan.

Approximately one-third of the administrators made no observable progress, although the reports indicated substantial achievement. The other 14 sites capitalized on support provided ($3,600) and documented increased faculty participation. Programs with a history of participative managment had the most substantial results. The focus of the plan led to their success.

For school improvement plans to influence leadership to work with faculty for improved climate, student performance, and sharing of decision making, successful experiences in the use of participatory management are evident.

1:00 p.m. - 1:50 p.m. THE SOCIALIZATION OF TEACHERS FROM PREPARATION TO PRACTICE: A SYMPOSIUM OF RESEARCH ON TWO INTERNSHIP-BASED TEACHER PREPARATION PROGRAMS (Symposium) . . . . . Edinborough

Organizer: Carol P. Etheridge, Memphis State University

Presenters: "INFLUENCES ON INTERNS' UNDERSTANDING OF THEIR TEACHING ROLES"
J. Jackson Barnette, Memphis State University

"ASSESSMENT OF BEGINNING TEACHERS' PROFESSIONAL BEHAVIORS: ADMINISTRATORS AND SUPERVISORS SPEAK"
Louis A. Franceschini, Memphis State University

"BEGINNING TEACHER CLASSROOM PRACTICES: COMPARISON OF GRADUATES FROM TWO MODELS"
Mary J. McNelis, Memphis State University

"SOCIALIZATION ON THE JOB: HOW BEGINNING TEACHERS MOVE FROM UNIVERSITY LEARNINGS TO SCHOOL-BASED PRACTICE"
Carol P. Etheridge, Memphis State University

The prevailing view among teacher educators is that beginning teachers do not keep the progressive views and practices learned in their teacher preparation programs. Teacher educators debate over what impact college and school have and then place blame on the public school workplace as the primary "wash-out" factor. Little is known about personal, college programmatic, or workplace context factors influencing teachers.

Proliferation of various internship models are recent attempts to extend the transition period and thus avoid the "wash-out" effects of the workplace and increase beginner effectiveness. Whether such is the case has become the research focus of several studies completed at Memphis State University. This symposium will summarize five recent studies that examine experiences of four student cohorts from two internship-based programs and the associated outcomes.

Paper 1 reports socialization outcomes of teaching interns' year-long induction into the roles and responsibilities of teachers. Using a repeated measures design, self-administered behavioral assessment scales yielded data regarding involvement in roles and activities of teachers, cognitive changes associated with teaching, and attitudes toward schools and students. Variation in socialization outcomes resulted from induction strategies of the two models, time, level of induction support, and personal variables.

Paper 2 reports interns' self ratings of levels of understanding and teaching competency and their report of program aspects that significantly and positively influenced their understanding or competency. Instrument subscales included understanding preparation program roles, socialization into the teaching setting, understanding policies and administrative practices, planning instruction, delivering instruction, facilitating classroom climate and handling discipline, and assessing student performance. Analyses suggested that specific program factors are related to development of intern understandings and competencies, but similar components have different influences between programs.

Paper 3 reports an assessment of teacher behaviors of graduates and interns from two programs compared to other beginning teachers. The Professional Behavior of Beginning Teachers Inventory, comprising six Likert-type scales that rate teachers' communication

skills, teaching skills, professional involvement, leadership, and comfort with being evaluated, was administered to school principals and curriculum consultants who worked with, observed, and evaluated the beginning teachers. Follow-up interviews clarified questionnaire data. Analyses indicated administrators and supervisors consider fifth-year program beginners to be significantly superior to other beginning teachers.

Paper 4 is a descriptive report of classroom teaching strategies of beginning teachers who were observed using the Beginning Teacher Practices Record, a Flanders-type scale designed to monitor presence of Tennessee Instructional Model components and other instructional strategies and behavior management techniques. Preliminary analyses indicated similar teaching behaviors between groups with little variation in type of teaching strategies used.

Paper 5 reports participant observation and interview data collected over a two-year period and uses thick description to report factors influencing beginning teachers' teaching behaviors. Analyses indicated that novice teachers prefer university learnings when selecting teaching strategies but modify their preferred teaching behaviors due to pressure from specific, unanticipated and thought-to-be controllable school factors.

2:00 p.m. - 2:50 p.m. EVALUATION (Discussion). . . . . .Aberdeen

Presider: Sam Lucas, Memphis State University

Presenters: "A SUMMARY OF THE MISSISSIPPI PERSONNEL APPRAISAL IMPACT STUDY"

Cathy W. Grace, Mark G. Richmond, and Cynthia A. Ward, University of Southern Mississippi, and Susan Hart-Hester, Mississippi State Department of Education

The study to be presented addressed the effects the 1986-87 statewide evaluation of certified school personnel had on job performance and general morale. The study also sought to secure information from the appraisal system to assist in the development of future systems and to allow for input from school personnel in the appraisal process.

To ascertain information that enabled the posited question to be accurately answered, the population of instructional personnel in public schools across that state was randomly sampled with questionnaires that addressed each subgroup within the population. The questionnaire was designed to elicit direct responses from those solicited as well as multiple-choice items. Information was extracted from the data using a variety of descriptive data points on which comparisons are made.

The outcome of the study was a demographic profile of the attitudes of public school instructional personnel towards the state-mandated evaluation system.

Conclusions drawn as a result of the study indicated that the appraisal process did affect morale in a positive as well as a negative manner. Specific points related to both positions will be presented.

"AN EVALUATION OF THEIR PREPARATION PROGRAMS BY MISSISSIPPI ADMINISTRATORS"

Lamar Moody, Mississippi State University, and Thomas H. Saterfiel, Alan Evans, and Edward Lee Childress, Mississippi State Department of Education

The problem was to obtain evaluations of preparation programs of Misssissippi administrators. Twelve validated generic skills were established as domains of interest.

Criticisms of administrator preparation programs are increasing. The literature reports a variety of recommendations to "fix" programs. Administrator organizations recognize many recommendations as impractical and from groups not qualified to judge.

Mississippi is revising certification requirements. Some requirements mandate changes in preparation. Information from practicing administrators may prove helpful in program revisions.

The questionnaire used was patterned after one developed in Texas. Mississippi

skills were substituted. The questionnaire was administered to 2,300 Mississippi administrators. Eight hundred forty-four usable questionnaires were received.

Modal responses were: (1) all skills reported as moderately developed, (2) lecture/discussion, individual/team research, and group process training were most frequently used instructional modes reported, (3) effectiveness of instructional modes was reported as moderate, with group process training reported highly effective in communicating and relating to people skills, and (4) group process training were recommended as the ideal mode for developing seven skills, internship for three skills, and tutorials/seminars for two skills.

The traditional lecture and discussion mode used most extensively in preparation programs was only moderately effective. Universities should carefully consider this study as a guide to revision of administrator preparation.

"EVALUATING AN EXPERIENCE-BASED PROGRAM FOR EDUCATING PRINCIPALS"

Janice M. Ducote, Kathleen A. Bolland, and James E. McLean, The University of Alabama, Tuscaloosa

The Danforth Principalship Program, offered by The University of Alabama, was designed to prepare students for certification as school principals. Based upon experiential learning, this program consists of seminars and an internship. An evaluation plan was designed to identify the program's strengths and weaknesses and to compare the Danforth Program to the traditional program.

This paper integrates the results of four surveys concerning the structure, content, and instructional process of the seminar and the internship. Four locally-developed questionnaires assessed input resources, such as classroom facilities, instructional support services, and the background of instructors and mentors. Several questionnaire items focused upon program objectives, orientation procedures, two program manuals, the instructional modules, activities required of the student interns, and interns-mentor conferences. Thirty-five program instructors and 12 mentors were asked to complete a questionnaire. Students completed two questionnaires.

Successful features of the program included the selection of content, the modular teaching approach, and the required activities which structured the internship. Instructors, students, and mentors were satisfied with orientation procedures and valued the manuals that were developed for the program. The instructors, mentors, and students recommended a continuation and expansion of the program.

"AAHEP: FIVE YEARS OF A TEEN PREGNANCY PREVENTION PROGRAM"

Sonja R. McNeely, The University of Tennessee, Knoxville, and Charles M. Achilles, University of North Carolina at Greensboro

Adolescent pregnancy is a growing problem wasting quantities of human and material resources. The mid-south has alarmingly high teenage pregnancy rates. Tennessee ranks 16th in teenage pregnancy rates (NCHS, 1980). The Appalachian Adolescent Health Education Project (AAHEP) operated from October, 1982 to September, 1987 to provide prevention and care services.

Using descriptive data, quasi-experimental design, and ex post facto processes, evaluators analyzed AAHEP services and results. Parents, clients, health providers, staff, and social-service persons provided data. Using baseline (1980-82) and national norms, target-area teen pregnancy data were analyzed. There were three levels of AAHEP service: Target Counties (Most intense service), Non-Target Counties (Service as available), and Comparison Counties (No service).

In target counties, a declining teen pregnancy rate seems to indicate considerable success. Care services (n = 1,265 in 1987) included counseling, transportation, and prenatal and childbirth education. Prevention efforts worked through other agencies such as schools. Pregnant teens know little about services available and the importance of proper child care. Many intend to complete their education, but child-care responsibilities or multiple pregnancies deter those plans. Results support the use of intervention models to reduce unwanted teenage pregnancy and establish care programs to provide needed information and assistance. Schools can help reduce this problem.

THURSDAY, NOVEMBER 10, 1988

2:00 p.m. - 2:50 p.m. EARLY CHILDHOOD (Discussion) . . . . . Ruskins

Presider: Barbara Grayson Love, University of Mississippi Medical Center

Presenters: "THE EFFECT OF CLASS SIZE ON STUDENT ACHIEVEMENT IN FIRST GRADE"

Joan M. Butler, Starkville (MS) Public Schools, and Herbert M. Handley, Mississippi State University

For several decades, benefits of small class size have been debated. Findings of earlier investigations indicate the relationship of class size and pupil achievement to be inconclusive.

The purpose of the study was to examine the relationship between class size and achievement of first graders. It was hypothesized that no significant difference would exist in achievement when small class size (20:1) was compared to large class size (27:1).

Subjects involved were 688 first graders. Achievement scores of pupils enrolled in the school district for 1987-88 were compared to the previous year's first-grade achievement scores. Current students were assigned to classrooms of 20 students. Students from the preceding year were assigned to classrooms of 27 students.

Gains in achievement were measured by the Stanford Achievement Test. Comparisons were made for differences in achievement using MANOVA.

Results indicated significantly higher means in reading, mathematics, and listening achievement for students grouped in small classes when compared to large classes.

A strong, positive relationship between small classes and achievement of first graders has emerged. Data collected will serve as an impetus for conducting a longitudinal study on class size as well as substantiating benefits of reducing class size in primary grades.

"KINDERGARTNERS AND THE 'WRITING TO READ' PROGRAM: RESULTS AND IMPLICATIONS"

Joan C. Carson, The University of Mississippi, and Patsy Sledge, Horn Lake (MS) Elementary School

The purpose of this study was to determine whether the experimental subjects who worked with the IBM computer program, "Writing to Read," had significantly higher language scores, as measured by the Tests of Basic Experiences (TOBE 2), than the control subjects who received only regular classroom instruction. The program is designed to develop students' writing and reading skills. Treatment consisted of two 45-minute periods per week for one semester.

The study, conducted during the 1986-1987 school year, had a total N of 225 kindergartners (120 males and 105 females) drawn from racially and socioeconomically comparable schools in north Mississippi. The study used a pretest-posttest design, and an analysis of covariance (pretest, the covariant and posttest, the criterion) was performed on the data.

Subjects were pretested and posttested with the TOBE 2 language subtests which assess 11 skill areas: visual discrimination, alphabet knowledge, initial sounds, final sounds, rhyming, space and location, verb tense, sentence sense, context, comprehension, and reading terminology. Statistically significant differences ($p < .05$) were found for the overall language score, visual discrimination, and comprehension. Both students and teachers reported positive experiences with the program and with computers as an instructional tool. Additional results and curricular implications will be presented.

"PRELIMINARY REPORT: IMPACT OF PARENTING AND COPING SKILLS OF FIRST-TIME MOTHERS IN AN INTERVENTION PROGRAM"

Merrylyn Moran-Smith, Kentucky State University, and Robert H. Bradley, University of Arkansas, Little Rock

The Parenting Behavior Project was designed for first-time mothers in counties

within central Kentucky. The primary objective is to determine if an intervention program would improve the ability of first-time mothers to parent in a manner that would result in a more optimum environment for their children and a more satisfying role for themselves. Basic premises considered were: (1) parents are the key figures in their developing child and (2) parent education is a dynamic process of learning that helps a parent become more adequate. The effectiveness of the intervention is demonstrated by changes in the parent and by significant development of the child. Parent education is viewed in terms of the cognitive information and social support given to parents primarily through monthly home visits. A Home Observation report is completed for each visit. Parent Potpourri, a project bi-monthly newsletter, is disseminated to clients as an additional method of intervention.

One hundred forty-three rural and urban clients consented to participate in the project. One hundred sixteen were active clients from lower class to middle class and ranged in age 16 to 26 years.

Four formal assessment instruments and four informal data sources were used. For the purpose of this presentation, the HOME and Parenting Stress Index through mid-assessments will be discussed.

"A COMPARISON OF GAIN IN ACHIEVEMENT SCORES BY FIRST-GRADE CHILDREN IN A SPLIT FIRST- AND SECOND-GRADE CLASSROOM TO FIRST-GRADE CHILDREN IN AN ALL FIRST-GRADE CLASSROOM"

Betty A. Bush and Gloria C. Correro, Mississippi State University

This study compared gain in achievement of first-grade children in a split first- and second-grade classroom to gain in achievement of first-grade children in a one-grade classroom. The Stanford Achievement Tests were administered to the children at the end of kindergarten and at the end of first grade. Analysis of covariance was used to determine the overall main effects.

The statistical model used independent variables of split or one-grade classrooms. The population consisted of 35 first-grade students from a rural school in a southeastern state. Fifteen first-grade students were in the split classroom. They were compared with 24 students in an all first-grade classroom.

Results of the study showed no significant difference in achievement for first graders in an all first-grade room or a split-grade class. Classroom means as opposed to individual test scores were analyzed. There was no significant difference in gain in means between male and female.

Parents are concerned over achievement when children are placed in the first-grade split class. This study offers information that placement in a split class does not affect achievement. Further study with more subjects is recommended.

2:00 p.m. - 2:50 p.m. CURRICULUM (Discussion). . . . . Shannon

Presider: Avis J. Ruthven, Mississippi State University

Presenters: "A STUDY OF TWO CORSINI 4R MAGNET SCHOOLS"

Paul A. Clark, Milligan College

Various writers have described American schools as being too authoritarian, causing both teachers and students to be stressful, joyless, and ineffective. Because students are regimented and, in some cases, treated in an inhumane fashion, they do not exert proper personal initiative and social interest.

Corsini 4R schools, using an Adlerian approach to education, are designed to make school more appealing as learning centers. These schools are located in the United States and various foreign countries.

This paper is a case study of two magnet schools in Joliet, Illinois, which are using the Corsini 4R approach to education. The author visited these schools and interviewed principals, teachers, and students.

The curriculum, which includes three components - academic, creative, and social, causes students to make greater academic progress and to be better disciplined. The four "R's" (goals) for students - Responsibility, Respect, Resourcefulness, and Responsiveness - are also effective as students choose their own activities within the school day.

"A MODEL FOR THE DEVELOPMENT OF DROPOUT PREVENTION AND REATTACHMENT SERVICES IN THE SCHOOLS"

Wallace Flint, Morehead State University

Dropping out of school before high school graduation has re-emerged as a priority issue for professional and public debate and concern. Past waves of concern have left little behind as they receded to make way for new concerns. School systems are once again under pressure to "do something," and most are responding. The resulting services are criticized as band-aid approaches - mere ornaments to show that something is being done. The lack of a conceptual model relating dropout prevention services to one another along a continuum has been a serious impediment to the development of the comprehensive network of services that are needed to serve "at risk" students of different ages and degrees of problem severity.

Simple solutions serve some students well, while others fall through the cracks of available services. Dropping out of school is viewed as a gradual process as the bond between student and school weakens. Dropping out represents the final step that occurs after opportunities for intervention at earlier stages have been missed. The root causes are essentially complex and personal.

This presentation offers a conceptual model to serve as a framework for development of a comprehensive array of dropout prevention and attachment services. Although education agencies cannot practically provide all the services in the array, the model will identify major program gaps so education planners and concerned citizens can proceed in a rational manner as opposed to the random adoption of programs and services.

"STAFF DEVELOPMENT: A REVIEW OF THE LITERATURE ON EFFECTIVE PROGRAMS AND RECOMMENDATIONS FOR FUTURE PROGRAM DEVELOPMENT"

Jane H. McHaney and William Impey, Kennesaw College

A review of the research and professional literature on staff development programs reveals a consistent pattern of characteristics associated with effective staff development programs. Each of these characteristics will be analyzed in terms of two broad frameworks: (1) McNergney's conceptualization of teacher development as the interactive relationship between teacher behaviors, teacher characteristics, teacher tasks, and teacher developmental environments and (2) the curriculum model developed by Goodlad and Associates to analyze the congruence between and among variables, including five different perspectives on curriculum, nine curriculum design components, and nine qualitative factors that effect curriculum development.

The implications derived from these two frameworks for analyzing the characteristics of effective staff development programs will be the basis for the recommendations presented in this discussion paper.

"THE TREATMENT OF SOCIOPOLITICAL DIFFERENCES: A CONTENT ANALYSIS OF SOVIET UNION HISTORY TEXTBOOKS"

John G. Thornell, Delta State University

The primary role of the textbook is to assist the teacher in presenting content. In many cases, however, the textbook has been used as a tool for propaganda and teaching religious and political views. Such use is particularly prevalent in the political arena as governments attempt to inculcate the values of their political and economic ideology. The purpose of this study was to assess the objectivity of Soviet Union history textbooks, giving particular emphasis to (1) their treatment of the United States and (2) their treatment of sociopolitical differences between capitalist and socialist countries.

Five middle school Soviet textbooks were selected for the study. A content analysis procedure developed by Banks was used to evaluate the objectivity of the

textbooks with reference to the two emphases cited above.

The results of the content analysis revealed that Soviet Union history textbooks lack objectivity in their treatment of the sociopolitical differences between socialism and capitalism and also in their treatment of the United States. The study concluded that the Soviet Union relies on history textbooks as a source of government progaganda.

2:00 p.m. - 2:50 p.m. INITIAL TEACHER LICENSURE TESTING IN TENNESSEE (Symposium). . . . . Edinborough

Organizer: Harry L. Bowman, Memphis State University

Presenters: "INITIAL TEACHER LICENSURE TESTING IN TENNESSEE: LEGISLATIVE REQUIREMENTS AND IMPLEMENTATION"
John R. Ray, The University of Tennessee, Knoxville, and Harry L. Bowman, Memphis State University

"INITIAL TEACHER LICENSURE TESTING IN TENNESSEE: TEST VALIDATION"
Harry L. Bowman and John R. Petry, Memphis State University

"INITIAL TEACHER LICENSURE TESTING IN TENNESSEE: TEST DEVELOPMENT"
E. Dean Butler and Todd M. Davis, Memphis State University, and Charles L. Faires and Michael Smith, The University of Tennessee, Knoxville

The symposium will focus on the current status of testing for initial licensure (certification) of public school personnel in Tennessee. The first presentation will address the legislative requirements established in 1984 and the steps taken to implement these requirements. The second presentation will report on studies conducted on the validity and standards of licensure tests. The third presentation will deal with subject matter tests under development for use in licensure.

LEGISLATIVE REQUIREMENTS AND IMPLEMENTATION (Ray & Bowman) In 1984, the Tennessee General Assembly enacted legislation to require the use of a core test (communication skills, general knowledge, and professional knowledge) and endorsement area/subject matter tests for initial licensure of public school personnel in Tennessee. The implementation of the legislation was to occur on July 1, 1984, or as soon thereafter as appropriate validation and standard-setting studies were completed. The tests being used for licensure are provided in two ways: (1) validation of available tests and (2) development of tests for endorsement areas without available tests. An overview of the requirements and implementation plan will be reported in the presentation.

TEST VALIDATION (Bowman & Petry) Validation and standards-setting studies have been conducted in 1984 and 1988 with candidate tests for the three core areas and 28 of the 40 current endorsement areas specified by the State Board of Education. Validity is addressed from two perspectives: (1) congruence between test content and professional preparation programs (higher education faculty) and (2) job relevance of the test content (practitioners). Setting standards for valid tests utilizes data obtained from subject matter experts (higher education faculty and practitioners) on the estimated performance of minimally qualified licensure applicants. Decisions on validity and recommendations on minimum qualifying scores are made by an independent committee. Currently, core areas tests for all initial licensure applicants and subject matter tests for 14 endorsement areas are required. The presentation will include a description of the validation and standards-setting procedure as well as the results of the studies already conducted.

TEST DEVELOPMENT (Butler, Davis, Faires, & Smith) In 1986, State Department of Education personnel identified 12 endorsement areas without candidate tests for possible validation and use as licensure tests. Two higher education institutions in the state were engaged to develop tests for these areas with the technical assistance of a national testing agency. The strategy utilized is designed to develop valid, reliable, and unbiased subject matter tests. The developmental efforts that began in July, 1987 are expected to require approximately three years to produce the tests needed for use in Tennessee. The presentation will describe the test development strategy, the status of current efforts, and plans for the future.

Audience participation in the symposium will be facilitated by limiting the presentations to overviews of the papers prepared for distribution. Time will be provided

for members of the audience to comment on the presentations and to question the presenters regarding the papers and general issues related to licensure testing.

2:00 p.m. - 4:00 p.m. THE USE OF CASE STUDIES FOR IMPROVING PROSPECTIVE TEACHERS' UNDERSTANDING OF CLASSROOM PROCESSES (Training). . . . . Bagpipe

Trainers: Roy A. Weaver and Theodore J. Kowalski, Ball State University, and Kenneth T. Henson, Eastern Kentucky University

The case method provides an active approach to engage students in thinking about the nature of the classroom. In this training session, research and theory related to using case studies will be examined. Emphasis will be placed on the application of the case study method as a strategy for students' exploration of knowledge about classrooms, teachers and teaching, pupils and learning, and the context of schooling. A video demonstrating the use of the case study method in an undergraduate teacher education classroom will be shown. How case study elements are used to systematically study a particular case will be discussed. Finally, participants will be presented a "mini" case, and a simulation of the case study method will conclude the session.

3:00 p.m. - 3:50 p.m. TEACHER EDUCATION (Discussion) . . . . . .Aberdeen

Presider: Joseph C. Taylor, Arkansas State University

Presenters: "TEACHER RESPONSES REGARDING THEIR RATIONALE FOR INSTRUCTIONAL DECISIONS"

Roger S. Pankratz and James R. Craig, Western Kentucky University

Highly trained professionals should be rational decision makers. This study investigated elementary, middle, and high school teachers' reasons for their instructional decisions related to planning and evaluation of student progress. Three hundred thirty-seven teachers were interviewed using the Kentucky Teacher Observer Dialogue Instrument. This instrument employed four question sets related to planning and three related to student evaluations. Data from approximately 1,500 interviews revealed that teachers can describe what they do but have difficulty in responding to why they make specific instructional decisions. The failure of teachers to provide a rationale for their decisions is being investigated further. Are teachers' decisions mainly intuitive and not based on a rationale framework? Do teachers have a rationale for their decisions but are seldom called on to think about their decisions? These and other questions are being asked as the content of the approximately 1,500 interviews is being reanalyzed and as focus group interviews with a sample of elementary, middle, and high school teachers are being conducted. The presentation will contain a written summary of the 1,500 original interviews and the results of a reanalysis of written notes of interviews. The presentation will also report on the responses of a sample of teachers with regard to their perceptions of why teachers have difficulty in providing a verbal rationale for their instructional decisions. The results of this study have far-reaching implications for training teachers in instructional decision making.

"DIMENSIONS OF TEACHER CONCERNS"

Richard Kazelskis, Carolyn Reeves-Kazelskis, and Carol Reed, University of Southern Mississippi

Responses of 129 experienced teachers to the Teacher Concerns Checklist (TCC) were factor analyzed using alpha factor analysis. Thirteen factors with eigenvalues greater than unity were rotated orthogonally using varimax. Eight of the factors were clearly interpretable and retained.

The retained factors were generally similar to those found in a previous study of preservice teachers' response to the TCC; however, the factors found for the two groups differed enough in both number and substance to preclude similar factor structures for the two groups.

To further examine the utility of the resulting factors, comparisons of unit weighted factor scores were made both between and within experienced and preservice teacher groups. The preservice teachers expressed significantly greater concern than the

experienced teachers on six of the eight factors. No significant differences were found between the two groups on the remaining factors. The experienced teachers, as a group, expressed a greater than moderate level of concern on six of the eight factors, a less than moderate level of concern on one of the factors, and a moderate level of concern on one of the factors. The preservice teachers expressed a different pattern of concern than did the experienced teachers on two of the eight dimensions.

"MODIFYING REGULAR CLASSROOM TEACHERS' ATTITUDE TOWARD EXCEPTIONAL CHILDREN"

Adrianna Hayes Francis, Eastern Kentucky University

As a result of Public Law 94-142, the Education of All Handicapped Children Act of 1975, many exceptional children have been removed from self-contained special classes and mainstreamed into the regular classroom. In promoting integration of exceptional children into regular classes, much emphasis has been placed on inservice and preservice preparation of teachers to develop skills and attitudes conducive to implementation of mainstreaming.

Review of the literature suggests a positive relationship between teacher attitude and teacher's perceptions of student competencies, as well as perception of various levels of physical, sensory, psychogenic, and social exceptionalities. The implication is that attitudes of regular classroom teachers may result in teacher behavior that is potentially detrimental to mainstreamed students' academic acheivement and psychological adjustment.

While research has shown the detrimental effects of teacher attitude, it is also pointed out that attitudes can be changed. Investigators have suggested that, although both information about and experience with exceptional children can lead to attitude change, a combination of information and experience is the most effective approach. However, there is little research to support this thesis. Similar lack of research and agreement on appropriate systems for delivering mainstreaming information to inservice and preservice teachers is also evident.

3:00 p.m. - 3:50 p.m. RESEARCH METHODOLOGY (Discussion). . . . . Ruskins

Presider: Warren A. Land, Mississippi State University

Presenters: "A MONTE CARLO STUDY OF THE SAMPLING ERROR IN MULTIVARIATE MEASURES OF RELATIONSHIP"

Bruce Thompson, University of New Orleans

Multivariate statistical methods are becoming increasingly popular as computer programs implementing the methods become more user-friendly and as researchers increasingly recognize that the failure to use these methods can lead to both serious inflation of experimentwise Type I error probability and substantive misinterpretations of results. However, it is widely known that fairly large sample size can be required for these methods. Some reseachers claim that multivariate measures of relationships are seriously inflated when sample size is small, though it is not entirely clear what small means in practice.

The present paper reports a Monte Carlo simulation study to investigate the effects of variations in sample size on bias in estimates of multivariate relationship. The study involved the creation of four different populations (N = 6,000) of data with known characteristics. Then, for each population, 1,000 sets of random samples were drawn for three different samples sizes. A comparison of obtained estimates of multivariate relationship with the true and known population values suggests that concern regarding bias in multivariate estimates may be exaggerated. Furthermore, the results suggest that multivariate statistics available to researchers for several decades appear to be at least as good as more recently developed statistics.

"HOW EQUAL ARE EQUIPERCENTILE METHODS?"

David T. Morse, Mississippi State University

Angoff offers two equipercentile equating options for nonequivalent group,

common item designs. The frequency estimation procedure assumes the same relationship of common items to each unique test for both groups. This is analogous to the homogeneity of regression assumption for linear equating. The second procedure, design V, makes no such assumption and is computationally simpler. The purpose of this paper was to compare these methods using the Mississippi Basic Skills Assessment Program and Functional Literacy Examination tests.

Comparisons were run on repeated stratified random 8% samples from the 1987 results (grades 3, 5, and 8 for BSAP, grade 11 for FLE), the criterion being that of smallest root-mean-squared error for equating the test to itself. Both smoothed and unsmoothed data sets were compared.

In general, the differences were small and yielded smaller RMS error estimates than did linear methods. The consequences of method used depended upon the grade level and whether or not smoothing was applied. Similar analyses will be run on 1988 data to determine the stability of the findings.

Initial findings suggested that the design V method, with its less stringent assumptions and simpler computation, may well be a viable alternative to the frequency estimation procedure for selected statewide achievement tests in basic skills areas.

"QUALITATIVELY-BASED PEER PROGRAM IDENTIFICATION"

Bruce A. Peseau, The University of Alabama, Tuscaloosa

The analytical phases of producing a cluster analysis are described. Data on resource and productivity variables from 76 doctoral-granting teacher education programs in public universities are used from a population of 110. The phases include (a) a correlation matrix, (b) discriminant function analysis, (c) a factor analysis, and (d) a cluster analysis. Three follow-up methods are shown for validating the goodness of fit of programs within the clusters. These tests included analysis of variance, chi square, and classification analysis. Problems of describing the factors and the clusters are discussed.

Three approaches to using the results operationally, as a dean or department chairman, are suggested. Overhead transparencies will be used to show how the academic administrator could interpret tables of factor scores, plot the data using Cattell's Pattern of Profile Similarity, and by returning to the raw data create comparative profiles on key variables.

"A PRIORI CODING FOR MANOVA"

Dorren Rafael Schmitt, University of New Orleans

Planned comparisons have been known for several years. Due to the availability of computers, these comparisons have become a more viable alternative to post hoc testing. There are several different types of planned comparisons that can be performed. Research goals must be well thought out when using planned comparisons, since the appropriate hypotheses to be tested need to be decided prior to analysis of data, which will also determine the type of planned comparison performed. But this foresight also allows the researcher to have increased power against a Type II error.

The literature regarding the use of planned comparisons is reviewed. The superiority of planned versus post hoc tests is discussed. Six types of planned comparison coding are discussed for multivariate analysis of variance (MANOVA).

3:00 p.m. - 3:50 p.m. EVALUATION (Discussion). . . . . Shannon

Presider: Linda N. Lee, Eastern Kentucky University

Presenters: "OUTCOMES ASSESSMENT: USE OF THE COLLEGE STUDENT EXPERIENCES QUESTIONNAIRE"

Jane Furr Davis and Justin Lucian, Christian Brothers College, and Todd M. Davis, Memphis State University

Outcomes assessment is an important development in higher education that has the

potential to significantly improve instruction and contribute to student development. Many instruments and procedures have recently been developed to assess student outcomes. One such instrument, which assesses a broad spectrum of student involvement in college life, is the College Student Experience Questionnaire (CSEQ), authored by C. Robert Pace.

The purpose of this paper is to discuss the utility and appropriateness of the CSEQ to provide data for assessing college outcomes and its ability to provide readily understood decision-oriented information. The CSEQ was administered in the spring, 1988 to 200 freshmen and seniors in a small, Catholic, liberal arts college in a large, southern metropolitan city. The college's responses were compared to the norms provided by the test developer and developmentally between freshman and senior respondents. Further analysis suggested both strengths and weaknesses in the college's programs when compared against the college's stated goals. From the analysis, 14 critical questions were developed and offered as a starting point for faculty discussion and administrative decision making.

This experience with the CSEQ suggests that the successful evaluation of college outcomes depends upon the criteria used, how outcomes themselves are defined, and how accessible the data are for decision-oriented purposes.

"STUDENT ASSESSMENT OF TEACHING PERFORMANCE AND CLASSROOM OBSERVATION"

Jerry B. Ayers, Tennessee Technological University

Direct classroom observation is a key to improving the performance of teachers. However, this process can be costly in terms of financial and human resources. The student of the teachers have the opportunity to observe in the classroom every day. What is the relationship between student assessments of performance and those made by independent observers? Data were gathered in 26 fourth-grade to twelfth-grade classrooms by trained assistants utilizing the Kentucky Observation Instrument. At least three visits were made to each classroom and one or more lessons were observed. During one visit, a group of about 30 students completed the Student Evaluation of Teaching instrument (SET). The observed verbal behaviors of the teachers, as measured by the KOI, were correlated with scores obtained from the administration of the SET. Three of the five factors of the SET (Lively and Interesting, Firm Control, and Non-Directive) were moderately to highly correlated with 8 to 15 factors obtained by direct classroom observation. It appeared that in some cases the instruments were measuring the same factors. Student assessment has value in determining the overall effectiveness of teachers and should not be overlooked. Best results are probably obtained by using scores from a combination of instruments.

"THE RELATIONSHIP OF STANDARDIZED TEST SCORES AND COURSE GRADES TO MISSISSIPPI BASIC SKILLS ASSESSMENT PROGRAM (BSAP) SCORES"

James Tadlock and Henriette Allen, Jackson (MS) Public Schools

This study examined the relationship of standardized test scores (CAT) and course grades to BSAP scores. The study was the first of several analyses that will be used to identify "at-risk" pupils and justify special intervention programs.

The population for this study consisted of over 1,800 eighth-grade pupils from an urban school district for the 1987-88 school year. Course grades, BSAP scores, and CAT scores were obtained for each pupil from extant testing programs. The strength of relationships was examined through frequency distributions and regression analysis.

There were three major findings: (1) the strongest relationship was between CAT and BSAP ($r = .77$ for reading and .77 for mathematics); (2) the weakest relationship was between CAT and course grades ($r = .48$ for reading and .64 for mathematics); and (3) more than 76% of the pupils who scored less than 70 (percent of items correct) on BSAP made CAT percentile scored below 30.

Despite the limitations of this study, the process yields a practical and economical technique for identifying "at-risk" pupils. This is highly significant as the district assigns limited resources for intervention with at-risk pupils.

"A POSITION PAPER ON CLASSROOM GRADING PROCEDURES"

Jeffrey Oescher, University of New Orleans

Many teachers continuously struggle with the problems associated with grading. At a recent professional meeting, an interesting approach to the problem was discussed (Terwilliger, 1988). It is based on a distinction between "minimal" and "developmental" objectives. The former represents essential outcomes for which mastery by all students is expected. The latter represents more complex outcomes toward which students aspire.

Due to the nature of each type of objective, minimal objectives are best assessed by criterion-referenced measures, while developmental objectives are more appropriately assessed in a norm-referenced context. Minimally acceptable performance standards can be established for the criterion-referenced measures, and dichotomous pass/fail decisions can be based solely on this information. Decisions regarding the assignment of various levels of passing grades can be made on a student's relative performance on the norm-referenced assessments. The unique aspect of this approach is its use of both assessments within the context of a single class.

An attempt to use this procedure in the context of an introductory research course proved quite successful. Part of the reason lies with the nature of the course objectives, part with the structure of the course. Although some problems developed, the approach provided the information necessary to assure the proper evaluation of student achievement in a manner that was quite acceptable to the professor.

3:00 p.m. - 3:50 p.m. ADMINISTRATION/SUPERVISION (Discussion). . . . . .Gaelic

Presider: Daniel Fasko, Jr., Morehead State University

Presenters: "A STUDY OF THE IMPACT OF THE EDUCATIONAL REFORM MOVEMENT ON MISSISSIPPI SCHOOLS"

Walter E. Sistrunk, Mississippi State University

The problem was to determine the impact of educational reform on programs and professional morale.

All 150 superintendents and 150 randomly-selected principals were surveyed. Eighty-three principals and 117 superintendents responded. Respondents chose one of three answers to each of 14 questions on programs and morale. Choices were negative, no change, and positive.

Both groups perceived the overall impact of reform as positive on programs. Both groups perceived the impact of reform on professional morale as negative. There were significant differences in their perceptions of the negatively influenced finances to a far greater degree than did principals.

Respondents perceived great needs for more specialized personnel and the retraining of many people as a result of educational reform. Both groups tended to perceive low morale of professional personnel as having little to do with productivity.

Analysis of variance was used to analyze the data.

"THE RELATIONSHIP BETWEEN TEACHERS' PERSONALITY FACTORS AND THEIR ATTITUDES TOWARD THE SUPERVISORY CONFERENCE"

Linda Buchanan, Mississippi State University

The problem was to determine whether there were any significant relationships between teachers' personality factors and their perceptions of the supervisory conference. Cattell's 16 Personality Factor Questionnaire (16 PF) was used to assess teacher personality factors. The Supervisory Conference Rating (SCR) was used to assess teachers' perceptions of the conference in three areas: (1) the total conference, (2) the environment of the conference, and (3) the principal's attitudes and behavior during the conference.

Fifty-one kindergarten, first-, second-, and third-grade teachers completed both instruments. The study found that factors G (Expedient vs. Conscientious) and Q^2

(Group-oriented vs. Self-Sufficient) had significant correlations with all three areas of the conference. In addition, regression equations indicated that factors G and Q^2 in combination significantly influenced the overall perception of the conference. Factors G, Q^2, N (Forthright vs. Shrewd), and E (Submissive vs. Dominant) in combination significantly influenced the perception of the conference environment, and factor Q^2 significantly influenced the perception of the principal's attitudes and behavior. These results imply that, since personalities of teachers influence their perceptions of the supervisory conferences, principals should consider these personality differences in order to plan productive conference experiences.

"PERCEPTIONS OF THE LEADERSHIP STYLES OF THE PRESIDENT IN THE TWO-YEAR COMMUNITY COLLEGES AS SELF-PERCEIVED AND AS PERCEIVED BY THE ADMINISTRATIVE COUNCIL"

Harold J. Morris, Mississippi State University, and John W. Bennett, Alcorn State University

The purpose of this study was to investigate the perception of the leadership styles, effectiveness, and flexibility of the public two-year college presidents as self-perceived and as perceived by the administrative council.

The population consisted of the president and five administrative council members from each of 60 public community colleges in Alabama, Arkansas, Louisiana, Mississippi, and Tennessee. Data were collected by mail. The presidents were to complete the Leadership Behavior Analysis II (Self), and the administrative council members were to complete the Leadership Behavior Analysis II (Others). Each was to give perceptions of the leadership behavior of the president in different situations. The presidents also completed a personal demographic questionnaire.

Descriptive statistics were used to analyze the data. The results reflected no major differences between the presidents and the administrative council in the leadership style and flexibility of the president. Both respondents agreed that the presidents' primary style was S3 - supporting - and the secondary style was S4 - delegating. There were slight indications that the perceptions of both groups were affected by the variables of age, experience, and position held.

"CAREER PATH OF SCHOOL SUPERINTENDENTS"

Norma T. Mertz and Sonja R. McNeely, The University of Tennessee, Knoxville

Conventional thinking holds that the way to the superintendent's office is through the high school principalship, and the way to the high school principal's office is through coaching. What is the career path of school superintendents, and to what extent is it true that coaching and high school principal are routes to the office?

The 147 Tennessee school superintendents supplied information about their career paths. The data were analyzed by group, race, sex, years in office, and method of selection (elected or appointed). Means, percentages, and tests of significance were used where appropriate.

There was a clearly identifiable path to the superintendency, with some variation in the particulars of the path: coach, principal, central office administrator.

The majority of superintendents studied were white males. One superintendent was black, 10 were female, all of whom were white. The career path for female superintendents differed from that of males. None had been administrators in high schools, although almost all had been central office administrators. None had coached.

The results suggest that there is considerable truth to conventional thinking that coaching and high school administration are primary routes to the superintendency. But there are alternative routes, particularly as one looks at the career path of female and appointed superintendents.

3:00 p.m. - 5:00 p.m. WRITING SUCCESSFUL PROPOSALS (Training). . . . . Edinborough

THURSDAY, NOVEMBER 10, 1988

Trainers: Charles L. Faires, Timothy J. Pettibone, and Regina A. Smith, The University of Tennessee, Knoxville

A two-hour training session will cover the following topics: why write proposals?, how to get started, formulating the "fundable" idea, sources of funding, approaching agencies, the "letter proposal," the full-blown proposal and its components, politics and proposals, and what to do when yours gets funded. The session will utilize a package of materials ($5) provided to the participants and will involve a great deal of "hands-on" activity. Participants will begin to outline a strategy for developing their own proposals. Reference materials will also be available at the session.

5:00 p.m. - 6:30 p.m. MSERA BUSINESS MEETING . . . . . Queen/Scots

Presider: Carolyn C. Williams, 1988 MSERA President

FRIDAY, NOVEMBER 11, 1988

7:30 a.m. - 8:30 a.m. PRESIDENTS' BREAKFAST. . . . . .Saddle Sirloin

8:00 a.m. - 12:00 p.m. Registration . . . . . .Meeting Area

9:00 a.m. - 9:50 a.m. ADMINISTRATION/SUPERVISION (Discussion). . . . . .Aberdeen

Presider: Jasmin McConatha, Auburn University

Presenters: "TEACHER INVOLVEMENT: A MESSAGE FOR 'RESTRUCTURERS'?"

Charles M. Achilles, University of North Carolina at Greensboro, and Reginald M. High, The University of Tennessee, Knoxville

Among suggestions for "restructuring" schools is more teacher "involvement." Teachers are selective; some avoid involvement in routine matters. High (1984) found that less effective principals (based on pupil achievement factors) used staff involvement more than effective principals. But, involvement in what? Administrators need to understand teacher interest in involvement.

A 2x2 matrix solicited teacher rank-order responses regarding their (1) actual involvement (yes/no) and (2) preference for involvement (yes/no) in school affairs. Respondents (n = 203) from 17 of the 21 schools selected for Tennessee's LEAD Project (1987-88) provided 2,518 items on involvement.

One matrix quadrant (am involved/wish to be) received most (40%) responses; only 1% of respondents did not provide responses in this quadrant. Another quadrant (am involved/ wish not to be) received the next most (25%) responses. A substantial number of responses (459) showed teachers involved in things they preferred not to be involved in. Data were content-analyzed into categories developed from the data. Results provided an instructive view of how teachers would and would not like to be involved in schools. Teachers in this sample clearly preferred involvement in teaching issues and opted not to be involved in routine (bus duty) and administrative issues.

"ACQUIRED ADMINISTRATIVE COMPETENCE: A SURVEY OF NATIONAL DISTINGUISHED PRINCIPALS"

Sam Lucas, Frank W. Markus, and Gilbert C. Brown, Memphis State University

The study was intended to investigate how successful principals viewed their personal qualities of professional skill and administrative ability and to what degree in each area of these they would attribute their national recognition.

This study assessed recognized outstanding principals' perceptions of (1) how and where they acquire their competencies, (2) the extent to which they perceived these as contributing to their success, and (3) their self-judged level of mastery in each area of

competence. Competencies were drawn from research published by 13 individuals, organizations, and professional associations, and from those required for licensure by the State of Tennessee.

A 59-item questionnaire was mailed to 620 elementary and secondary principals whose schools were judged exemplary by U.S. Department of Education between 1983 and 1986. A 51% usable response rate (n = 320) was achieved. The 59 items represented 14 major areas of administrative competence drawn for the research, including instruction, leadership, personnel, community relations, research, technology, business management, evaluation, facilities, law, governance, and technology.

Leadership skills, communication skills, and knowledge of curriculum processes were felt to be most needed and best mastered. These skills were mastered on the job; preservice graduate study was insignificant. Perceived as least required for successful performance were skills in research, use of technology, and legal understanding. Respondents recognized these areas as least-well mastered and as having been learned in graduate courses.

Universities should review objectives in preparing school administrators, particularly in the areas of interpretation of published research, action research methods, technological aids to assist in decision making, and utility of state law and case precedent.

"THE RELATIONSHIP BETWEEN SECONDARY TEACHERS' PERCEIVED LEVELS OF BURNOUT AND THEIR PERCEPTIONS OF PRINCIPALS' SUPERVISORY BEHAVIORS"

Gloria Dianne Richardson, Mississippi State University, Meridian

This study investigated significant differences in teachers' perceptions of their high, moderate, or low levels of burnout and their perceptions of their principals' supervisory behaviors. Demographic variables of gender, race, and subject area were considerded. A random sample of 120 Mississippi teachers of English, math, science, and social studies was drawn from secondary schools having any or all of grades nine through twelve. Teachers completed two questionnaires: the Maslach Burnout Inventory, Form Ed, and the Supervisory Behavior Description Questionnaire, Form 1. Data were analyzed using one-way analysis of variance and t-tests for the dichotomous demographic variables of gender and race. Results showed significant differences between the subscales of emotional exhaustion and developing curriculum for collaborative and non-directive behaviors and between emotional exhaustion and staff development for non-directive behaviors. Significant differences were found between the subscales of depersonalization and developing curriculum for collaborative behaviors, depersonalization and staff development for collaborative behaviors, and depersonalization and evaluation of instruction and instructors for both directive and collaborative behaviors. Examination of the means indicated that supervisory behaviors may relate positively or negatively to burnout for certain tasks of the teachers.

"PERCEPTIONS OF TEXAS ELEMENTARY PRINCIPALS AND TEACHERS REGARDING EVALUATIONS OF PRINCIPALS"

Theresa H. Mullins, Kaufman (TX) Independent School District, and William F. Ferguson and James T. Johnson, University of Southern Mississippi

The purpose of this study was to compare the perceptions of teachers and principals in Texas public elementary schools regarding the evaluation process for elementary principals. Random samples of 460 principals and 460 teachers were requested to respond to the 23-item questionnaire, which consisted of eight clusters and several demographic items. Responses made to each of the 23 items in Likert-style fashion were coded as continuous variables. Multivariate analysis of the data resulted in numerous statistically significant findings. Teachers were more likely than principals to feel that teachers should be directly involved with the evaluation of principals. Furthermore, teachers had less confidence than principals in the value of self-evaluation by principals. Oddly, teachers seemed to perceive the role of the principal as an instructional leader more strongly than did the principals. These and other findings seemed to suggest that colleges and schools of education need to address these issues in their graduate classes, and perhaps administrators need to be more aware of the way teachers perceive administrator roles.

FRIDAY, NOVEMBER 11, 1988

9:00 a.m. - 9:50 a.m. MICROCOMPUTERS (Discussion). . . . . Bagpipe

Presider: Kathleen A. Bolland, The University of Alabama, Tuscaloosa

Presenters: "USING SMALL-GROUP CBT FOR TRAINING LOW ABILITY STUDENTS"

Theodore Mark Shlechter, Army Research Institute, Fort Knox

The literature has suggested that low ability students would benefit more through small-group CBT than through individual CBT. However, investigators have rarely compared the effectiveness of these two CBT methods for training such students.

This investigation examined the effects of small-group versus individual CBT on low ability students. Thirty-six military trainees were assigned to either a four per terminal, paired or individual CBT condition. Each condition and terminal group had a comparable number of subjects with high and low aptitude scores. The courseware was a drill-and-practice design geared for individualized training of a procedural learning task. Subjects were neither encouraged nor discouraged from helping each other. A pretest-posttest design was used to measure each subject's learning. Observers recorded the subjects' behaviors at the terminals.

Paired CBT was the most effective method for training the low ability subjects, and individual CBT was the least effective method. Cooperative learning occurred at the group and paired condition terminals with high ability subjects serving as peer instructors.

This investigation provided support for using small-group CBT for training low ability students. Also, instructors may consider pairing low and high ability students at the same terminal.

"ONE GIANT STEP FOR SOFTWARE DESIGNERS: IMPLICATIONS AND GUIDELINES FOR USING A 4-STAGE MODEL IN THE DESIGN OF COMPUTER-BASED LESSONS"

Jacqueline K. O'Dell and Gary R. Morrison, Memphis State University

The ability of the computer displays to direct learners' attention and provide cueing and simulation strategies (flashing, inverse, animation, and sound) make it a dynamic mode of presentation. These display and delivery characteristics add to the complexity of designing computer-based instruction CBI lessons. Beyond the initial lesson design process, which includes steps that follow from goal statements through the selection of instructional strategies, designers must make decisions regarding the sequence and form of content, the use of graphics and sound, and, finally, lesson authoring (Hannum, 1986; Morrison & Ross, 1987).

Approaches to the design of instruction are well documented; however, there is less information to guide designers in the process of translating the designed content into a CBI lesson (Morrison, 1987). Current approaches to lesson authoring suggest the use of grid sheets, flowcharts, mainline charts, or a combination to specify content and display information (Allessi & Trollip, 1985; Bork, 1985; Dean & Whitlock, 1983; Richards & Salisbury, 1987). Major limitations of these approaches include (1) restricted attention to designing either the lesson content or screen display, (2) limited or non-existent cues to prompt designers to attend consistently to critical design considerations such as graphics, animation, highlights, branching, and feedback while the lesson is being designed (Richards & Salisbury, 1987), and (3) isolated view of examples of lesson content, structure, and interaction variables.

This session will describe the components and process of a 4-stage model for translating an instructional design into a CBI lesson. The model consists of flowchart, storyboards, detailed flowcharts, and evaluation, offering designers a flexible and adaptive approach in which CBI design is implemented on paper as an intermediate step between the lesson design and the program production. Each stage of the model is displayed and described in detail using examples from recent applications.

"QUIZZER: PUBLIC DOMAIN SOFTWARE FOR DRILL AND PRACTICE"

Paul L. Jones and Deborah Lawson McCormick, Chief of Naval Technical Training

One of the educational tasks for which computers are especially well-suited is providing review and practice. Yet, a problem which plagues virtually every teacher is finding an easy-to-use, inexpensive means of developing drill and practice computer exercises. The interest of the present study was to evaluate the effectiveness of Quizzer, a public domain drill and practice administrator developed by the Air Force, in meeting this need.

Subjects in this study were 50 young adults in a remedial math/vocabulary course at the Naval Air Technical Training Center, Naval Air Station, Memphis. Instructors were asked to submit questions that could be used in reviewing the vocabulary segments of the course, and these questions were compiled into Quizzer format. All subjects received standard instruction, except that instructor-led review of vocabulary which normally preceded testing was replaced by computer administered drill for approximately half the students. Students who received computer drill scored significantly higher on a posttest measure of achievement than students who received instructor-led review.

A review of the Quizzer software is presented and possible classroom applications are discussed, as well as implications for instructors.

"A SURVEY OF UNIVERSITY STUDENTS' BEHAVIOR, KNOWLEDGE, AND OPINIONS REGARDING UNAUTHORIZED COPIES OF COMPUTER SOFTWARE"

Margaret L. Glowacki and Richard L. Rice, Jr., The University of Alabama at Tuscaloosa; Harry E. Ross, Central Michigan University; and M. Khris McAlister, University of Alabama at Birmingham

The widespread use of proprietary microcomputer software has led to discussion concerning its unauthorized use. Many software vendors feel that, despite copyright laws, explicit licensing statements, and copy protection schemes, a number of individuals, including university students, are making or accepting unauthorized copies of software.

This study examined the behavior, knowledge, and opinions of a sample of university students concerning unauthorized copies of software. A questionnaire with 29 Likert-type and dichotomous questions was developed and administered to the students.

The frequencies of responses to the questions were examined. Interesting findings from a group of 230 students in introductory information systems classes included: when students were asked to respond yes or no to whether they would make uanauthorized copies of software, 25.99% of the students responded yes and 74.01% responded no, but when asked to respond to a Likert-type question asking whether they would probably make unauthorized copies of software, 29.47% responded they would, 39.29% were undecided, and 31.24% would not. When asked to respond if they would probably accept unauthorized copies of software, 46.43% would accept, 33.03% were undecided, and 20.54% would not.

Examination of the data suggests that members of the sample group make or accept unauthorized copies of computer software and that further research is warranted.

9:00 a.m. - 9:50 a.m. TEACHER EDUCATION (Discussion) . . . . . Ruskins

Presider: Anne G. Tishler, University of Montevallo

Presenters: "IMPROVEMENT OF TEACHING TECHNOLOGY FOR BEGINNING SECONDARY SCHOOL TEACHERS"

James R. Thomson, Jr., and Herbert M. Handley, Mississippi State University

Under the Education Reform Act of Mississippi, the need for revising the preservice preparation program for secondary teachers became evident. In one major university, the basic curriculum for professional preparation of these teachers was rewritten. The reported study presents data concerning the evaluation of the

effectiveness of the new program.

Sixty preservice teachers were randomly selected for each of the experimental and control groups. The experimental group was taught the new material in 45 hours of instruction, including use of simulations and videotaped lesson sequences. The control group received 45 hours of instruction on the same topics delivered through traditional lecture format.

Two instruments, the Myself as a Teacher Scale (r = .96) and the Test of Cognitive Development (r = .92), were developed and validated for use in a pretest-posttest research design. The Mississippi Teacher Assessment Instruments and the professional development scale of the National Teacher Examinations were also employed.

In all cases, the experimental group did significantly better than did the control group. They scored higher on the criterion-referenced test, made more gains on the Myself as a Teacher Scale, and were rated significantly higher on their classroom performances by their supervisors.

"A LONGITUDINAL STUDY OF PRE- AND POST-REFORM ACT DATA ON ELEMENTARY EDUCATION MAJORS: THE SECOND YEAR"

Aubrey W. Shelton and James S. Turner, Mississippi State University

Over the past five years, numerous commissions have reported suggestions to institutions of higher education, particularly colleges of education, concerning the improvement of teacher education. The authors collected base data on students in elementary education in order to provide insight concerning the present program and to compare it with results of planned changes.

The purpose was to organize raw data into some manageable form to provide short-term and long-term planning. Specifically, the study was based on the following: ACT - English, Social Science, Math, and Composite; NTE - Communication Skills, General Knowledge, Professional Knowledge, and Specialty Area; and COMP - General, Speaking, and Writing.

Phase I provided a demographic profile of elementary majors. Phase II, which began this year, examines predictive relationships between and among the various tests and subareas listed above.

The sample included data from all elementary majors beginning 1983 through 1988. Approximately 50-100 subjects per year were studied due to the variance in institutional requirements for qualifying for entrance into the College of Education.

Results will compare elementary education majors' attributes and achievement prior to reforms with their attributes and achievement after a variety of reforms have been added to the pre-professional curriculum. An attempt was made to formulate predictive relationships based on these data.

"A STUDY OF THE RELATIONSHIP BETWEEN SELECTED RATING SCALES AND A LOW INFERENCE MEASURE OF STUDENT TEACHER PERFORMANCE"

Edith A. Miller, Auburn University, and Terry G. Roberson, University of Montevallo

While much of the current literature regarding teacher evaluation clearly indicates discrepancies among ratings, such scales remain a major source of information for the assignment of grades to student teachers. There is a growing interest in objective measures of teacher performance, especially since they have the potential for producing data important to the supervision and development of preservice teachers.

The purpose of this study was to explore the congruence between three ratings (self, cooperating teacher, and university supervisor) and a low inference measure of teacher behavior. More specifically, the purpose was to determine which rating, if any, was the best predictor of performance on the Classroom Observation Record (COR), a sign instrument specifically designed to record a teacher's classroom behavior/performance on a number of predetermined competencies. The rating scales used in the study were based on the same competencies. Data were based on two observations of 20 student teachers and

were analyzed using correlation matrices and multiple regression techniques.

The results supported some of the general notions in the literature regarding the ratings of student teachers; e.g., the severity/generosity error in cooperating teacher ratings and the fairly marked discrepancy between ratings and objective measurement data.

9:00 a.m. - 9:50 a.m. ATTITUDES (Discussion) . . . . . Shannon

Presider: Richard D. Keaster, University of New Orleans

Presenters: "LEARNING AND GRADE ORIENTATION: HOW SENIORS AND FRESHMEN DIFFER"

Julia S. Rogers and Laura E. Bolen, University of Montevallo, and W. Ross Palmer, The University of Alabama, Tuscaloosa

LOGO II, a paper-and-pencil questionnaire developed by Eison and colleagues, has been used to assess whether a student is primarily learning oriented or grade oriented. Previous research has investigated the relationship of LOGO scores to learning styles, study habits, anxiety, and other personality and educational characteristics. Earlier research by the authors profiled the learning and grade orientations of an entire freshman class at a small, public supported liberal arts university. The present study was undertaken to (a) compare the learning and grade orientations of seniors with those of the freshmen as an indicator of possible changes in learning and grade orientation during the college years, and (b) relate the LOGO scores of students at both levels to a variety of educational and sociological variables. The LOGO scores were analyzed for differences in learning and grade orientations between the two classes, among different majors, and for different ACT and GPA levels. Seniors showed higher learning orientation scores than freshmen, but not for grade orientation scores. Students were also divided into four groups based on their pattern of LOGO scores, and these data were analyzed with class level and other demographic and interest variables to further differentiate orientation patterns.

"DIFFERENCES IN ATTITUDES TOWARD POST-EVALUATION CONFERENCE FOR PROFICIENT AND NON-PROFICIENT TEACHERS IN MISSISSIPPI"

Arlene T. Amos, Choctaw County (MS) Schools, and Neil G. Amos and Herbert M. Handley, Mississippi State University

The purpose of this study was to determine if there was a significant difference in the mean attitudinal scores of teachers who met proficiency and those who did not meet proficiency on the Mississippi Teacher Assessment Instruments (MTAI) toward the post-evaluation conference with their principals. The study also tested for a significant difference using the variables of gender, race, age, level of preparation, and teaching position.

A random sample of 285 Mississippi teachers was given the Supervisory Conference Rating Instrument immediately following the post-evaluation conference. Of the 285 subjects, 255 met proficiency and 30 did not meet proficiency on the MTAI. A significant difference at the .01 level was found for proficiency. Teachers who met proficiency had a significantly higher attitude toward the post-evaluation conference than teachers who did not meet proficiency.

A significant difference at the .05 level was found for age. Teachers over 54 years of age had a much more positive attitude toward the conference than did teachers under 30 years of age. No significant difference was found for gender, race, level of preparation, or teaching position.

"THE EFFECT OF SCHOOL ORGANIZATION ON ACTIVITY, ACHIEVEMENT, AND ATTITUDE TOWARD SCHOOL OF NINTH-GRADE STUDENTS IN MISSISSIPPI"

Margie M. Dean and Vernon D. Gifford, Mississippi State University

The purpose of this study was to determine if there were significant differences between the number of extracurricular activities, academic achievement, and attitudes

toward self and school of ninth-grade students in Mississippi junior high schools and their counterparts in the senior high schools.

A total of 771 junior high school ninth-grade students (selected from 31 junior high schools) and 825 senior high school ninth-grade students (selected from 33 senior high schools) completed the Survey of Pupil Opinion (SURPO) and the Extracurricular Activity Checklist. Grade-point averages were taken from the office records of the schools. Four hypotheses were tested using a t-test and multiple analysis of variance.

Results indicated that the ninth-grade students housed in junior high school settings participated significantly more in extracurricular activities and achieved significantly higher than the ninth-grade students housed in senior high school settings. No significant difference was found in attitude toward self and school between ninth-grade students housed in junior high schools and their counterparts housed in senior high schools. A significant difference was found in favor of ninth graders housed in the junior high school setting when all the variables (extracurricular activity, achievement, and attitudes toward self and school) were considered as a composite measure.

9:00 a.m. - 11:00 a.m. WRITING A MANUSCRIPT AND GETTING IT PUBLISHED (Training) . . . . . Edinborough

Trainers: John R. Petry, Memphis State University, and Charles M. Achilles, University of North Carolina at Greensboro

Problems associated with writing and publishing reports about research will be analyzed. Topics will include sources of ideas for research and writing, guides for effective writing, proofing and editing a manuscript, publication sources, methods of submitting manuscripts, criteria for evaluating manuscripts, and ethics in authorship and publication.

Objectives of the session are to increase the awareness of attendees of opportunities to publish, to raise standards for writing quality manuscripts, and to establish minimum guidelines for professional growth through writing and publications.

Activities include a diagnosis of the basic writing skills of attendees and an analysis of articles submitted for publications.

10:00 a.m. - 10:50 a.m. LEARNING STYLES (Discussion) . . . . . .Aberdeen

Presider: Brookes Walthall, Western Kentucky University

Presenters: "ON MATCHING TEACHING APPROACH WITH STUDENT LEARNING STYLE: ARE WE ASKING THE RIGHT QUESTION?"

Patricia H. Murrell and Todd M. Davis, Memphis State University

The literature on learning style is broad, but few studies have directly addressed the issue of the relationship between instructor's learning style, student style, and the impact that the degree of instructor commitment to a particular mode have on student achievement.

As part of a broad spectrum outcomes assessment program, the Kolb Learning Style Inventory (LSI) was administered to all entering students (n = 196) enrolled in freshman English and to their instructors (n = 7) at a small, selective, southern liberal arts college. At the end of the semester course grades were collected.

Results suggested that no significant differences were observed in course GPA between students who were matched, partially matched, or held opposite styles to their instructors. Further analysis indicated that student Divergers, Assimilators, Convergers, and Accommodators showed no significant difference in course GPA. Finally, however, when the data were analyzed by the degree of instructor commitment to a particular learning mode, expressed as a Euclidian distance measure, those students with the least committed instructors showed large and significantly higher GPA's than did those taking classes from committed instructors.

These findings suggest that the less committed to a particular mode an instructor is, the more capable that teacher may be in providing instruction to students of different learning styles.

"DISCRIMINANT ANALYSIS OF TEACHERS' LEARNING STYLES: PROFILED BY TEACHING AREA"

Pamela A. Kirk and E. C. O'Neal, Mississippi State University

The problem of this study was to determine if 17 affective variables on the Canfield Learning Styles Inventory, Form S-A would discriminate among teaching areas of public school teachers. The sample was composed of 86 public school teachers in a county district in Mississippi who were enrolled in a staff development workshop. The instrument used was the Canfield Learning Styles Inventory, which was administered to the participants. The sample was grouped into four areas: elementary, secondary, special education, and others. Using mean scores, a learning style profile was developed for each group. Group one, elementary, revealed a high preference for numeric content and the reading perceptual model. The secondary group showed a preference for competition, authority, and the reading modality. The special education group preferred peers, competiton, and order. Their perceptual modality was reading. The group, others, revealed a preference for authority, working in student teams, and the reading mode. Results of the discriminant analysis identified four variables: goal setting, detail, listening, and the iconic modality. With today's trend toward collaborative, school-based, instructionally-relevant staff development, pertinent information about how adults learn, appropriate resource selection, and learner specific teaching methods are necessary for quality staff development of teachers.

"AN INVESTIGATION OF LEARNING STYLES AMONG ELEMENTARY MATH AND SCIENCE TEACHERS ACROSS SCHOOL SIZES"

Ava F. Pugh and Bob Cage, Northeast Louisiana University; Dan Lindow, Woodlawn (LA) Junior High; and Carolyn C. Minder, Northeast Louisiana University

The purpose of this study was to examine the types of learning styles of teachers in school districts of varying sizes. The hypothesis addressed was that there are no significant differences in teacher learning style preferences among elementary math and science teachers employed in different-sized school districts. Subjects (n = 112) consisted of elementary math and science teachers from five parishes in northeast Louisiana. The teachers were participants in Title II workshops which were conducted by the investigator on the campus of Northeast Louisiana University during the 1986-87 academic year. The data were collected using the Productivity Environmental Preference Survey.

The hypothesis was tested using ANOVA. Secondary comparisons were ranked preferences of learning style types across school size. The results showed a strong similarity of learning style preferences among elementary math and science teachers across the three different school sizes: small, medium, large. Only one significant F value was found. Teachers in small schools preferred to learn alone when compared to teachers in medium-sized schools, who preferred to learn with other people. No differences were found in preferred types of learning styles between teachers in small-sized and large-sized schools.

10:00 a.m. - 10:50 a.m. CURRICULUM (Discussion). . . . . Bagpipe

Presider: Bruce A. Crowe, Mississippi State University

Presenters: "THE RELATIONSHIP BETWEEN THE TRAINING OF THINKING SKILLS AND THE ACT--YEAR II"

Jane L. Weare and Frederick E. Woodall, Delta State University, and Julia G. Moore, Sunflower (MS) County Schools

The purpose of this study was to continue an examination of standardized test scores earned by disadvantaged students who have been exposed to thinking skills instruction. Specifically, the study looked at rural Mississippi high school seniors and their performance on the American College Test (ACT).

All subjects received 340 minutes of programmed instruction in thinking skills conducted outside the regular curriculum either during the first or second semester of the school year. All subjects were also enrolled in a class where the teaching strategy included thinking skills.

All seniors were tested on site under standardized conditions. Three tests were selected and provided by the research division of ACT. A test was given at the beginning of the school term, at the end of the first semester, and on the day prior to the national testing day in the spring.

Three general conclusions can apparently be drawn. For students with historically low scores, the test should be taken at the end of the senior year. The practice of taking the test apparently has some benefits in test performance. School districts that wish to improve ACT scores should look to instructional practices in the classroom.

"FLES AND ACADEMIC SUCCESS: DOES FOREIGN LANGUAGE STUDY IN ELEMENTARY SCHOOL MAKE A DIFFERENCE?"

Patricia Davis Wiley, The University of Tennessee, Knoxville

Proponents for early foreign language study in the elementary school (FLES) argue that early exposure to a foreign language appears to positively affect mental dexterity, flexibility, creativity, and global and abstract thinking. This research study attempts to answer: Does FLES have a similar effect on reading skills and other academic abilities?

The topic of FLES is indeed timely in 1988 when foreign language education is experiencing a renewed growth and regaining a major role in the K-12 curriculum nationwide.

Data collected included chronological age, sex, ethnicity, grades, and standardized test scores. The subjects in the study were those third-grade students (approximately 1,500) who had been given FLES during the 1987-88 academic year and those who had not been given a foreign language but who attended a different (but similar SES) school within the same district.

Analysis procedures included frequency distributions, two-tailed t-tests, and correlation analysis. Results of this research indicate that early foreign language study does make a difference in academic success as measured by school grade and standardized test scores (especially those measuring vocabulary development and silent reading ability), thereby strengthening the importance of FLES in the curriculum and encouraging further research on the topic.

"THE ANATOMY OF TWO CONTRASTING CLASSROOMS: PARTICIPANT OBSERVATION AND THE CONSTANT COMPARATIVE ANALYSIS IN ONE WHOLE LANGUAGE AND ONE TRADITIONAL SECOND GRADE"

Carol F. Stice and J. Bertrand, Tennessee State University

This report presents a portion of the methodology and findings from a study describing the similarities and differences between a whole language and a traditional classroom. The presenters will suggest models for helping teachers better understand what both children and teachers do in these two very different environments.

A two-year pilot study (C. Stice and N. Bertrand, 1987) suggested statistically significant trends between some aspects of literacy development for children in whole language versus traditional classrooms. That study led to the development of a larger project which used naturalistic methodology. One component of the naturalistic study was the construction of models of actual practice.

This study utilized observational data-gathering techniques and ethnographic style interviews. These data were analysed with the constant comparative method (Glaser and Strauss, 1967), resulting in dense and detailed models which identify critical variables.

The subjects were from a high quality, second-grade, emerging whole language classroom and a comparable traditional second grade. These classrooms were located in one inner-city school, and the children were considered at-risk of school failure. Data included video tapes, field notes, artifacts produced by the children, and interviews.

10:00 a.m. - 10:50 a.m. ADMINISTRATION, FINANCE, CULTURE (Discussion). . . . . Ruskins

FRIDAY, NOVEMBER 11, 1988

Presider: Kathleen T. Campbell, University of New Orleans

Presenters: "A COOPERATIVE SCHOOL 'EXPERT VOLUNTEER' STUDY: ONTARIO, CANADA AND KNOXVILLE, TENNESSEE PILOT STUDY RESULTS"

M. Nan Lintz, The University of Tennessee, Knoxville, and Michael F. Kompf, Brock University

Volunteers are the operational basis in public agencies such as the Salvation Army and the Red Cross. Publicly-funded schools serve communities' youngest citizens. Additional adults are needed to supplement instruction and to help special student populations (e.g., minority, ethnic, "at risk"). This study targets an "untapped" resource--expert volunteers (EVs), retired or otherwise non-practicing, certified teachers (Kompf, 1988). This paper (1) establishes a theoretical/practical basis for the use of EVs and (2) compares and discusses survey findings collected in Ontario, Canada and Knoxville, Tennessee.

A survey instrument (Kompf and Dworet, 1988) was distributed to 100 Ontario principals; it was adapted for Tennessee schools and distributed to 93 Knoxville principals. A second survey instrument (Kompf, 1988) was distributed to 50 pre-retirement Ontario educators, adapted for Tennessee and distributed to 50 pre-retirement Knoxville teachers. Survey questions pertinent to EVs were analyzed and comparisons were made. Data indicated trends regarding the use and implications of EVs in such areas as special/remedial education and one-on-one instruction. Findings showed that non-practicing teachers are willing to volunteer, not necessarily doing the same tasks or as many as before. Recommendations are made for the development, implementation, and evaluation of EV programs as beginnings or supplements to general volunteer activities in schools.

"FIGHTING WORLD WAR III: AN ARGUMENT FOR FULL STATE FUNDING IN AN ERA OF GLOBAL COMPETITION"

Frances C. Fowler, The University of Tennessee, Knoxville

Concern about the ability of the U.S. to compete in a high-tech, global economy has fueled the educational reform movement of the 1980's. Recently, some have recommended structural reforms, including reforms of school finance. It is the position of this paper that full state funding (FSF) is one of the finance reforms which should be seriously considered.

Traditionally advocated as a way to equalize educational opportunity, FSF could also contribute significantly to improving educational quality, especially in mathematics, science, and technology. Two recent international studies of achievement in mathematics and science suggest that one cause of the poor American performance is wide differences in curriculum quality between schools. FSF could provide a way to minimize such differences. In addition, the research on governmental fragmentation suggests that FSF would encourage districts to cooperate in providing high quality programs. Finally, FSF would make possible more efficient use of administrator time; that is, a factor which the effective school and district research suggests is critical in achieving educational quality.

Any serious consideration of FSF as a way to improve educational quality implies a research agenda, which is discussed at the end of the paper.

"AN ANALYSIS OF EQUITY IN TENNESSEE SCHOOL FINANCE"

Gary L. Peevely, Rogersville (TN) City School, and John R. Ray, The University of Tennessee, Knoxville

The problem was to assess the equity of public school finance in Tennessee given the current foundation program and the variance of revenue access of the individual school districts.

Data were collected on all the 141 school districts from the following areas: (1) locally-funded teachers, (2) sales tax, (3) property assessments, (4) local revenues, (5) state revenues, and (6) local bonded indebtedness. Since the study concentrated on horizontal equity (or equal treatment of equals), relationship-based measures were used in the assessment methodology. Pearson correlation was derived for each of the variables of interest. Since the question of equity focuses on opportunity for instruction, a stepwise linear regression was utilized with the number of locally paid teachers as y.

The results of the correlation showed the existence of a very strong relationship between locally paid teachers outside the Tennessee Foundation Program and sales tax revenues. Furthermore, the result of the regression showed the sales tax revenues to account for approximately 74% of the variance in the number of locally-funded positions outside the foundation program. While a strong relationship existed between income and property assessments, there was a negative relationship between sales tax and property tax rates.

It was concluded that the program was inequitable.

"HOW TEACHERS ACQUIRE EXPECTATIONS OF THEIR STUDENTS: AN INTERNATIONAL PERSPECTIVE"

James H. Robinson, University of Kentucky

This study examined one aspect of self-fulfilling prophecies: how teachers acquire expectations of students. From the anthropological theory of education as cultural transmission, it explains how teacher expectations are part of the socialization process in schooling. It is unique for two reasons: (1) it defines teacher expectations as being based on the teacher's perception of the social status of a child's parents, and (2) the sample is from a non-Western culture.

Data were collected from one year of field work at an inner-city elementary school in Seoul, Korea. Both ethnographic descriptions of "key events" in classroom interaction and statistical analysis of these events provided the results.

The results documented at least two major sources of teacher expectations: (1) the student Home Background Study and (2) teacher-mother interaction. The Home Background Study requested information on the social status of parents based on occupation and education. Within teacher-mother interactions, mothers influenced teacher expectations by courting teachers and presenting "chon-ji," tokens of appreciation.

The implication from this study is that the relationship between the parent and the teacher has an important influence on self-fulfilling prophecies in the schooling.

10:00 a.m. - 10:50 a.m. COUNSELING (Discussion). . . . . Shannon

Presider: Betsy B. Ward, Mississippi State University

Presenters: "MISSISSIPPI VOCATIONAL REHABILITATION COUNSELORS' TRAUMATIC BRAIN INJURY SERVICES SURVEY"

Darwin A. Johnson, T. Lee Napier, and Jean Farish, Jackson State University

The purpose of this study was to gather baseline data in the State of Mississippi from and for currently practicing rehabilitation counselors on traumatically brain injured (TBI) clients. Mississippi is a state where two agencies, Blind & General, exist, and both participated in the study.

Data collected focused on a ranking of seven problematic domains of impairment. The domains were Educational, Financial, Independent Living, Physical, Psychological, Social, Vocational. Counselors were also asked to assign a degree of importance for each domain in rehabilitation service delivery. Then, after ranking and assigning degree of importance, a ranking of problem areas within each domain was obtained. Each counselor was asked how long he/she had been a counselor, areas served, number of TBIs on his case-load during his tenure, and what proportion of the present caseload is diagnosed as TBI.

Next, each counselor was asked what services were available in his area and then what services he has utilized for TBI clients. A total of 18 treatment resources or services were explored.

The instrument's last section consisted of a five-question, five-level response of general information about TBI facts measuring counselor general knowledge of this new group of clients.

Analysis of data indicated that for most domains assessed both agencies were in agreement with respect to importance of the domains and ranked them similiarly with the

exception of education. Financial counselors from the Blind Agency ranked the financial domain significantly less as a problem causing persisting disability then the general counselors while they considered it significantly more important in rehabilitation outcomes than did general counselors. Similar results were indicated with the educational domain.

"ADULT CHILDREN OF ALCOHOLISM: A STUDY OF THE INCIDENCE OF THE PROBLEM AT THE UNIVERSITY LEVEL"

Jean Wilson, Morehead State University

The Children of Alcoholics Screening Test (CAST) was administered to 641 college students to determine the incidence of the problem of students coming from families in which one or both parents were alcoholic. Approximately 22% of the sample were classified as having at least one alcoholic parent. The incidence was higher for females (24.5%) than for males (18.7%). Female adult children of alcoholics 35 years and older seemed to worry most about their alcoholic parent; 54% of them stated that many of their thoughts revolve around a problem-drinking parent. Problems ACAs experience are described and intervention strategies are discussed.

"SUBSTANCE ABUSE: URBAN VS. RURAL PERSPECTIVES OF STUDENTS IN GRADES 7-12"

Gypsy Abbott Clayton, Kathy Jo Ellison, Lloyd Engdahl, and Ernestine Johnson, The University of Alabama at Birmingham

Substance use/abuse are seen as critical problems in the teenaged population. Issues of concern to parents and educators are (1) factors relating to substance abuse, (2) ages when students begin using drugs, and (3) factors potentially affecting the prevention of substance abuse.

A researcher-developed survey was administered to two groups of students in grades 7-12 in the southeast - 1,505 students from a rural county and 791 students from an affluent urban area. The questionnaire was completed by students during the school day.

Students in the two groups were similar in that they described their primary reason for substance use as "having a good time," with substances generally used at parties. Both groups indicated that parents need to "be better listeners." Alcohol was the most frequently used drug by both groups.

The students from the rural and urban groups differed in several ways. A primary difference was that students from rural schools strongly endorsed the belief that the school could be an effective agent for drug prevention whereas students from the urban area reported that the school could have little impact on drug use. Implications of these findings for community and parent education programs will be discussed.

11:00 a.m. - 11:50 a.m. TESTS (Discussion) . . . . . .Aberdeen

Presider: William A. Person, Mississippi State University

Presenters: "WHAT ROLE DOES FORMAL EDUCATION PLAY IN THE IQ-AGE RELATIONSHIP ACROSS THE ADULT LIFE-SPAN?"

James E. McLean and Alan S. Kaufman, The University of Alabama, Tuscaloosa, and Cecil R. Reynolds, Texas A & M University

Age differences in intellect as reflected in WAIS-R performance from age 20 to 74 years were evaluated while educational attainment levels were held constant. The seven adult age groups (ranging from 20-24 to 70-74) in the WAIS-R standardization sample, comprising a sample of 1,480 men and women, provided the data source. The 25-34 year age group served as the target sample for this study; the mean scores for adults in each educational category, within each age group, were weighted to match the educational distribution of ages 25-34. After weighting for education, the decline in mean Verbal IQ from age to age disappeared. However, declines across the 20-74 year range remained for Performance IQ and Full Scale IQ, even after controlling for education. These results were also obtained using multiple regression techniques.

"A CROSS-CULTURAL VALIDATION STUDY OF THE KAUFMAN ASSESSMENT BATTERY FOR CHILDREN WITH KOREAN CHILDREN"

Soo-Back Moon, Hyosung Women's University

The study investigated the factor structure of the Korean version of the K-ABC (K-K-ABC) to provide construct validity evidence for the K-ABC. Further, item bias of the K-ABC Mental Processing Scales and a Sequential-Simultaneous profile of Korean children were examined.

The subjects of this study included 440 Korean children and the American standardization sample of the K-ABC. The age of subjects ranged from 2 1/2 to 12 1/2 years. Four principal components analyses and principal factor analyses were computed with combined age groups. In the factor analyses of the K-K-ABC Mental Processing subtests, only two factors (Sequential and Simultaneous) emerged providing strong support for the construct validity of the K-ABC Mental Processing Scales. In the factor analyses of all subtests of the K-K-ABC, three factors (Sequential and Simultaneous/Achievement) for preschool children emerged as the most meaningful reduction of the data.

Korean children, and particularly preschool children, showed a high sequential-low simultaneous profile on the K-K-ABC Mental processing subtests. The results of item bias tests showed only three items of the K-ABC to be significantly biased against Korean children.

"K-ABC MENTAL PROCESSING PROFILES FOR GIFTED REFERRALS"

Patti L. Harrison and Richard F. Ittenbach, The University of Alabama, Tuscaloosa, and Lynn Roth Taylor, Norfolk (VA) Public Schools

In a review of research with children already placed in gifted programs, Kamphaus and Reynolds (1988) found inconsistent patterns of K-ABC Sequential and Simultaneous Processing score differences. The purpose of the present study was to extend previous research by investigating K-ABC performance for a sample of gifted referrals.

The subjects were 54 children (ages 6-12 years, 68% white, 32% black) referred for possible gifted placement. A repeated measures analysis of variance indicated that K-ABC Sequential scores were significantly higher than Simultaneous scores ($p < .05$). Ipsative comparisons for each subject indicated that 31 (58%) of the subjects evidenced no relative difference between Sequential and Simultaneous scores, 17 (31%) had significantly higher Sequential scores, and 6 (11%) had the opposite pattern. The mean scaled scores for Number Recall and Marix Analogies subtests were higher than other subtest mean scores. Ipsative comparisons for each subject indicated that Number Recall was a relative strength for 14 (26%) and Matrix Analogies was a relative strength for 12 (22%). Results of this study did not provide conclusive evidence for a characteristics profile on the K-ABC for gifted referrals, although there was some indication that may subjects had higher scores on sequential processing and subtests with higher "g" loadings.

"DEVELOPMENT AND CONSTRUCT VALIDATION OF AN INSTRUMENT TO MEASURE MULTIPLE DIMENSIONS OF STRUCTURAL COUPLING IN SCHOOLS"

Connie S. Logan and Chad D. Ellett, Louisiana State University

This paper reports the development and construct validation of a comprehensive instrument to measure dimensions of structural coupling of schools as organizations. A comprehensive review of the existing literature in structural coupling was used to develop a table of specifications for item development. A pool of 180 items was generated to measure nine school coupling elements. A sample of 696 teachers in 10 elementary and 10 secondary schools in a large southeastern school district responded to all items using a four-point, forced-choice format.

A series of factor analyses identified 10 salient factors, accounting for 66% of the total variance. The 10 independent dimensions of the coupling construct were: Goal Consensus/Vision, "Top-Down" Control, Evaluation/Feedback, Autonomy, Centralization of Decision Making, Formality of Rules, Specificity of the Work Technology, Isolation/ Interpersonal Communication, Work Routines, and Formality of Communications. Alpha reliabilities for these dimensions ranged from .79 to .98.

The results of this study generally confirmed the original logical classification of instrument items and the school organizational elements of the structural coupling construct. The final 105-item instrument is the first known that collectively measures 10 facets of school coupling.

11:00 a.m. - 11:50 a.m. TEACHER EDUCATION (Discussion) . . . . . Bagpipe

Presider: Patrick Ferguson, The University of Alabama

Presenters: "ASSESSING THE EFFECT OF A TEST PREPARATION PROGRAM ON THE NATIONAL TEACHER EXAMINATIONS SCORES OF PRESERVICE TEACHERS"

Anita P. George, Neil G. Amos, and Herbert M. Handley, Mississippi State University

The purpose of this study was to determine the differences in NTE scores of students at Mississippi State University who participated in culminary and summary activities designed to improve scoring on the NTE and those who did not.

Test preparation activities were conducted just prior to NTE administrations in the fall and spring semesters of the 1987-88 school year. These activities were designed to encourage students to generate ideas of the practical applications of learning theory, self-concept theory, educational legislation, classroom management, and tests and measurement.

Data will be presented that include analysis of the following measures of student performance: ACT, COMP Test (College Outcome Measures Program), QPA, Major (elementary, secondary, special education), and NTE: Communications Skills score, General Knowlege score, Professional Knowledge score, and Specialty Area Test score.

Time will be allowed for discussion and questions at the end of the presentation.

"THE EFFECT OF ACTIVE RESEARCH INVOLVEMENT ON SECONDARY SCIENCE AND MATHEMATICS TEACHERS"

Judith A. Boser, Charles L. Faires and Wilber S. Slawson, The University of Tennessee, Knoxville, and Wayne Stevenson, Oak Ridge Associated Universities

Twenty-three secondary science and mathematics teachers from Tennessee and other southeastern states participated in an eight-week program in the summer, 1987 in which they were employed in on-going research projects in the Oak Ridge, Tennessee area. Each participant was assigned to a research mentor in the employment setting. Participants also met weekly in seminars/workshops to hear presentations by scientists and to develop ways to integrate their research experiences into their classroom teaching.

Pretest data were collected at the beginning of the summer. Some posttest data were collected at the end of the summer, and other data relating to changes in teaching were collected at the end of the 1987-88 school year. Sign tests and paired t-tests were used to compare pretest and posttest data on perceived knowledge, attitude, interest, confidence, awareness, and classroom activities. The .005 level of significance was used in all cases because of the number of tests conducted. Significant changes were noted in perceived knowledge and awareness. Changes were noted in other areas but were not statistically significant.

"TEACHER EDUCATION REFORMS: THE DECANAL RESPONSE"

Robert O. Riggs and Suzanne B. Ellis, Memphis State University

The two-fold purposes of the study were to ascertain the character of reforms in the nation's teacher education programs which have been imposed by state legislators, boards of education, and other public authorities pursuant to the publication of A Nation At Risk and associated studies. Second, the study sought the reaction of deans of NCATE-accredited schools of education to the impact that these extremely mandated changes have had on institutional autonomy and academic integrity.

A questionnaire developed by the authors was mailed to the chief academic officers of NCATE-accredited teacher education programs. Data derived from the completed questionnaires were analyzed and served as the basis for the study's results and conclusions.

Responses from college of education deans indicated that externally-mandated changes in teacher education programs are prevasive. Widespread requirements for program modification were reported in the realms of admission standards, curriculum, exit criteria, and state-approved program criteria.

Deans vary broadly in their opinions as to the professional desirability of the changes. Similarly, diversity of opinion is noted when deans responded to the questions of institutional autonomy and academic integrity. Analyses of data when cross-tabulated by type of institutional governance and size of undergraduate teacher preparation enrollments are reported.

11:00 a.m. - 11:50 a.m. OCCUPATIONAL CHOICES/STRESS (Discussion) . . . . . Ruskins

Presider: Barbara Grayson Love, University of Mississippi Medical Center

Presenters: "ANOTHER LOOK AT SECOND GRADERS' OCCUPATIONAL CHOICES: FIVE YEARS LATER"

G. Yvetta George, Broward County (FL) Schools System, and Barbara B. Schaer, Auburn University

Past studies of elementary school children found choices based upon sex-stereotyped expectations for males and females differed. A study of 151 elementary children presented five years ago on this topic by the authors confirmed the findings that younger children and females choose more androgenous career choices and that parents reflect these choices for their children. The current study extends, replicates, and compares changes in occupational choices found in the first study by focusing on second-grade children of differing socioeconomic status and what they report as their future career choices.

Subjects were 492 second graders who responded to a questionnaire asking, "What do you want to be when you grow up?" Upper socioeconomic males were 124; females, 113. Lower socioeconomic males were 142; females, 113.

Chi squares for both occupational choice by sex ($X = 207.9$, $df = 16$) and by socioeconomic status ($X = 35.5$, $df = 16$) were significant at the tested .05 level.

Interesting comparisons to findings of the study five years earlier were that 77 children today chose teaching careers, whereas, previously, only one out of the 151 chose to become a teacher. Homemaker again was an unpopular choice as only one male chose that career.

"AN ANALYSIS OF STRESS-RELATED FACTORS AMONG SECONDARY RESOURCE TEACHERS"

J. M. Blackbourn, Stephen F. Austin State University; Harlan O. Hawley, Cedar Valley (IO) Schools; and Dale D. Baum, Frederick Dufflemeyer, and Gary Phye, Iowa State University

The purpose of this study was to determine the level and sources of stress experienced by secondary resource teachers. The study examined immediate classroom factors and structural factors within the educational system which produce stress, as well as the comparative levels of stress experienced by secondary resource teachers in various-sized school districts. The sample of 500 secondary resource teachers was randomly selected from the total population of similar teachers in Mississippi, Texas, Missouri, and Iowa. Data were collected through the use of the Survey of Stress Factors Among Special Education Teachers. Four hundred sixty-two, or 92.6%, of those teachers surveyed responded to the instrument. The data were analyzed item by item to study any differences in the stress levels of the subjects due to size of school district. A factor analysis was used to determine those factors most closely associated with teacher "burnout" and to document the strength of the sources associated with each of the statistically devised factors. Teacher responses indicated a moderately high level of stress associated with the items on the survey instrument and significant differences in stress associated with

school district size, and they identified significant major factors asssociated with "burnout."

"PERCEIVED SCHOOL STRESS AMONG SRI LANKAN TEACHERS"

Jeffrey Gorrell, Southeastern Louisiana University, and K. H. Dharmadasa, National Institute of Education, Sri Lanka

This study was conceived in order to determine the types of events perceived by different groups of teachers in Sri Lanka who informally report that their profession is fraught with stress, ranging from poor pay schedules to disruptive students in the classroom. The instrument, a 25-item Likert-scaled list of potentially stressful school situations which has been used in American studies of teachers stress, was translated into Sinhala, the majority language of Sri Lanka, and adapted slightly to the different types of teaching situations found on the island.

Analysis of data was performed on five subscales related to personal relationships with students, discipline, student progress, institutional demands, and communication with students. A 2 (gender) x 3 (grade levels taught) x 5 (levels of teaching experience) MANOVA was performed for each subscale, revealing statistically significant higher levels of stress on four of the subscales for teachers at the highest grade levels. Teachers with fewest years of teaching experience reported significantly higher levels of stress on two of the subscales; additionally, there was a general trend found for levels of stress to decrease with years of experience. Discussion of implications of such findings in relationship to Sri Lankan education will be provided.

11:00 a.m. - 11:50 a.m. EVALUATION (Discussion). . . . . Shannon

Presider: Barbara M. Goodnite, Mississippi State University

Presenters: "A COMPUTERIZED HIGHER EDUCATION OFFICE SYSTEM: THE EVALUATION THREE YEARS LATER"

Timothy J. Pettibone, The University of Tennessee, Knoxville, and Mary Ellen Roddy, New Mexico State University

This study reports on a follow-up evaluation of a specific application of PROFS (Professional Office System) in a higher education administrative environment. The system was installed in the offices of department heads, associate deans, research center director, and dean in a college of education in a southwest land-grant university in the summer, 1985. The follow-up evaluation included the use of a questionnaire and a telephone survey of primary and secondary users of the system. The questionnaires were sent to the users by way of the PROFS system on the BITNET computer network. Usage of the system has changed considerably from the time of implementation, and the primary users have also shifted from the administrators themselves to their support staff. Use of the system has also changed to electronic mail almost exclusively. Calendar use has dwindled to almost nothing. Reasons for these shifts and implications for future use of such systems are explored.

"PERFORMANCE-BASED ACCREDITATION IN MISSISSIPPI"

Cynthia Ann Ward, University of Southern Mississippi; Susan Hart-Hester, Mississippi State Department of Education; and Stephen W. Hebbler, The University of Alabama, Tuscaloosa

One provision of the Mississippi Education Reform Act of 1982 established a "performance-based" accreditation system for school districts. The development of this performance-oriented system is discussed along with the goals and objectives for establishing an outcome-based accreditation process. Three outcome models are currently being considered by Mississippi educators in an effort to rate school district performance: (1) Total Score Model, (2) Free-Lunch Model, and (3) Quartile Model. The strengths and weaknesses of each proposed model are examined. Future plans for the incorporation of additional outcome measures and incentive standards are also discussed.

"EVALUATION OF A STAFF DEVELOPMENT PROGRAM"

John L. Keedy, West Georgia College, and E. H. Thompson, Emory and Henry College

This evaluation used the "utilization" model advocated by Michael Patton. Study findings were used as suggestions for program improvement. This study evaluated year one of Galax City Schools (GCS), Virginia's Staff Development Program (SDP). Evaluation findings were used as recommendations to improve the second year of the SDP.

The evaluation design was an exploratory, qualitative, case study. Data collection instruments included an open-ended, free-response questionnaire of all district administrators and teachers; selected interviews of central office and building administrators and of teachers; and direct observations of both Teacher Dialogue Groups (TDG) -- a SDP component -- and staff development trainers, whom the evaluator "shadowed." (The data collected through individual, confidential interviews may be particularly significant since interviewees could comment "freely" upon the SDP's successes/failures.)

Study findings related to (1) specific recommendations to improve training workshops, (2) the importance of teachers "conceptualizing" SDP training objectives, (3) GCS personnel perceptions of "teacher change/improvement," (4) specific recommendations for conducting TDG's, and (5) commentary on administration of SDP.

Several conclusions/implications of this study included: (1) better communication could have occurred among central office, principals, and teachers, (2) the political context of schools and districts as "cultures" might be considered in program evaluation, and (3) the resources of time and money can be crucial determinants in SDPs.

11:00 a.m. - 11:50 a.m. EARLY CHILDHOOD (Discussion) . . . . . Edinborough

Presider: L. Quinn Head, Jacksonville State University

Presenters: "FAMILY CHANGE: IMPLICATIONS FOR PUBLIC SCHOOLS"

James Tadlock and Henriette Allen, Jackson (MS) Public Schools

Extreme demands are being made of American public education today. Schools are expected to provide both equity and excellence in educational opportunity, although increasing numbers of children are entering school from a background of poverty, poor medical care, and experiential deprivation. A significant part of this problem is associated with extensive changes in family structure; namely, more mothers in the work force, more single parents, more teen parents, higher divorce rates, a shifting of income away from households with children, and more non-home child care.

This presentation utilizes longitudinal demographic data to illustrate cosmic changes in the structure of American families and will consider several current proposals that have been offered to mitigate the problems caused by family change. Considerable disagreement exists about the merits of these diverse proposals (some are outright controversial), but there is almost complete agreement that family change has resulted in learning problems for many children. Likewise, there is widespread agreement that the most successful remedy for these problems can be made with the combined efforts of parents, schools, employers, and politicians.

"AN EVALUATION OF THE TRENDS OF REALISM IN CALDESCOTT WINNER AND HONOR BOOKS, 1966-1986"

John A. Smith, Jr., and Georgia Napier, Jackson State University

The purpose of this study was to determine if there were any consistent tendencies toward the abstract in the illustrations created for the Caldescott Winner and Honor books for the years 1966-1986.

Three judges were selected to evaluate the illustrations of the Winner and first Honor book of each year of the study. A Realism Quotient was computed, and all collected data were submitted for statistical analysis.

The historical background of the illustrations in children's picture books and information of the status of children's picture books in foreign countries is discussed in the review of literature.

A correlation matrix of the interrelationship of the specific categories of the evaluation was projected and indicated a significant trend toward realism in the illustrations. The indication of a significant trend was further supported by the results of the Mann-Whitney U Test and vertical bar graphs.

"THE RELATIONSHIP OF AGE OF ENTRANCE TO KINDERGARTEN TO ACHIEVEMENT IN GRADES ONE THROUGH FIVE"

Pamela C. Boyd, Mississippi State University

The problem of this study was to determine if age entrance to kindergarten is related to achievement at the end of grades one through five. The study also sought to determine whether or not the variables of sex, race, and family income discriminate between younger and older students. Dependent variables included the score on the subsets of the California Achievement Test (environment, reading, and math) and total battery score.

The subjects for this study consisted of all students enrolled in the Cooperative Demonstration Kindergarten in the year 1980-81 and remained in the Starkville School System for five consecutive years. The sample included students who were five years of age or older by September 1st of the year in which they enrolled in kindergarten.

An analysis of covariance and repeated measures design were used to analyze the data. The results of the data answered the questions: (1) Do younger children achieve significantly less than older students? (2) Does the difference appear at all grade levels, or does it decrease or disappear at higher levels? and (3) Do the variables, sex, race, and family income, affect the achievement difference?

MSERA CONSTITUTION AND BYLAWS

CONSTITUTION AND BYLAWS OF THE MID-SOUTH EDUCATIONAL RESEARCH ASSOCIATION
(As Amended November 12, 1987)

CONSTITUTION

ARTICLE I

NAME AND MEMBERSHIP

The organization shall hereafter be known as the Mid-South Educational Research Association. Any person who supports the purposes of the Association shall be eligible for membership and shall be an active member in this organization upon payment of annual dues as provided in the bylaws.

ARTICLE II

PURPOSES

The Mid-South Educational Research Association shall be a non-profit incorporated educational organization whose purposes are to encourage quality educational research in the Mid-South and to promote the application of the results of quality educational research in the schools.

Said corporation is organized exclusively for educational and scientific purposes; i.e., as a non-profit educational organization whose purpose is to encourage and provide results of quality educational research in elementary and secondary schools and in institutions of higher learning, including, for such purposes, the receipt of donations and books to further educational research and the making of distributions to organizations that qualify as exempt organizations under section 501 (c) (3) of the Internal Revenue Code of 1954 (or the corresponding provisions of any future United States Internal Revenue Law).

No substantial part of the activities of the corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office. Notwithstanding any other provision of these articles, the corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from corresponding provision of any future United States Internal Revenue Law) or (b) by a corporation, contributions to which are deductible under section 170 (c) (2) of the Internal Revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law).

In the event of dissolution of the corporation, any assets remaining after paying all liabilities shall revert to and become the property of an organization which is qualified under section 501 (c) (3) of the Internal Revenue Code of 1954 amended.

ARTICLE III

INCORPORATION

The Association shall be incorporated upon provision of the laws of the State of Mississippi.

ARTICLE IV

OFFICES AND TERMS OF OFFICE

Section 1.a. The governing body of the Association shall consist of a President, Vice-President/President-Elect, Secretary-Treasurer, Immediate Past-President, Directors, and Executive Secretary, who are members of the Association. These officials shall constitute the Board of Officers and Directors of the Association (hereafter called the Board of the Association). The term of office for each elected official shall begin on the first day of the calendar year following election to the Board of the Association.

b. The Directors shall consist of four members at large; one from among the representatives of elementary-secondary schools; one from among the representatives of the State Departments of Education; and one from each of the constituent states.

Section 2.a. The Officers of the Association who serve as Vice-President/President-Elect and Secretary-Treasurer shall be elected at the Annual Meeting of the Association for a term of one year. The Vice-President/President-Elect shall succeed automatically to the office of President for a term of one year upon completion of a term as Vice-President/President-Elect or upon the occurrence of a vacancy in the office of President. Each officer shall serve until a successor assumes office except for the Vice-President/President-Elect who would succeed to the office of President due to a vacancy in the office.

b. The Directors of the Association shall be elected for a term of two years. The Directors elected at large, the Director representing the elementary-secondary schools, and the Director representing the State Departments of Education shall be elected at the Annual Meeting during odd-numbered years, and the Directors representing the states shall be elected at the Annual Meeting during even-numbered years. Each Director shall serve until a successor assumes office.

c. All elective Officers and Directors will be eligible for re-election to the offices that they hold for one additional term except the Vice-President/President-Elect, who is restricted to one term, and the Secretary-Treasurer, who is not restricted as to the number of terms served.

d. In case a vacancy occurs in the office of Secretary-Treasurer or among the Directors, the successor to fill the vacancy shall be named by a majority vote of the Board of the Association. If a vacancy occurs in the office of Vice-President/President-Elect, the office will be filled by election at the next Annual Meeting of the Association. Any person who is named to fill an unexpired term shall be eligible for election to the office to which the appointment is made.

Section 3. The Immediate Past-President of the Association shall be an ex officio voting member of the Board of the Association and shall serve during the term of office of the successor as President.

Section 4. The Board shall appoint an Executive Secretary of the Association who will be an ex officio non-voting member of the Board and will serve at the pleasure of the Board.

Section 5. The President, Vice-President/President-Elect, Secretary-Treasurer, and Immediate Past-President shall constitute the Executive Committee of the Board.

Section 6. The Officers, Directors, and Executive Secretary of the Association shall be residents of the constituent states during their terms of service on the Board. Any vacancy on the Board that occurs as a result of a failure to comply with this requirement shall be filled in the manner prescribed herein for the respective office.

ARTICLE V

MEETINGS OF THE BOARD OF THE ASSOCIATION

The Board of the Association shall hold at least two meetings per year at sites designated by the President. One meeting shall be held for the purpose of outlining and planning activities for the Association's Annual Meeting, including the program for the Association, approving the annual budget, approving changes in the constitution and bylaws, and discussing such other matters of business that need to be addressed at that time. The second meeting shall be held prior to the Annual Meeting of the Association for the purpose of finalizing program plans, acting upon proposed changes in the constitution and bylaws, and conducting such other business as the President or other members of the Board may deem necessary.

ARTICLE VI

NOMINATION AND ELECTION OF OFFICERS AND DIRECTORS

Section 1.a. A slate of nominees for Officers and Directors to be elected at the Annual Meeting of the Association will be named by a committee appointed by the President and composed of equal representation from each of the constituent states.

b. Nominations for any position may be made to the committee by any active

member of the Association, provided that the member secures (1) the written permission of the nominee and (2) the signatures of four other active members endorsing the nomination. The committee shall establish and announce a deadline for receiving nominations.

Section 2. The nominating committee shall announce the nominations for all positions direct the preparation of ballots, and conduct the election. The President will announce the results of the election at the business session of the Annual Meeting of the Association.

Section 3. The elective Officers and Directors of the Association shall be named by secret ballot of the members attending and voting at the business session of the Annual Meeting of the Association. A majority of the votes cast shall be required to elect Officers and Directors except for the Directors elected at large. A plurality of the votes cast on ballots for Directors elected at large shall be required for election.

Section 4. Each Director representing a constituent state shall be elected by the members of the Association who are from the state represented by the respective Director.

ARTICLE VII

MEETINGS OF THE ASSOCIATION

The Association shall hold an annual meeting at such time and place as is designated by the Board of the Association.

ARTICLE VIII

BYLAWS

The Association may adopt such Bylaws as are necessary for its operation by a majority of the active members present and voting at any Annual Meeting of the Association. Such Bylaws shall not be in conflict with the provisions of this constitution. Bylaws or their modification may be proposed by an active member of the Board of Directors or any active member of the Association.

ARTICLE IX

AFFILIATIONS

A state research association whose members are desirous of promoting the purpose of this Association and sharing in its work may become affiliated with this organization as provided in the Bylaws.

ARTICLE X

AUTHORITY FOR CONDUCTING MEETINGS

Section 1. Robert's Rules of Order shall serve as the guide to be followed in conducting all regular and special meetings of the Association and the Board of the Association. At the beginning of each session, the President will name a parliamentarian to advise on all parliamentary questions during the meeting.

Section 2. This constitution shall go into effect immediately upon acceptance by a three-fourths majority vote of the members of the Board of the Association attending and voting at a regular Board meeting and by a three-fourths majority vote of the members attending and voting at a regular meeting of the Association.

ARTICLE XI

AMENDMENTS

Section 1. This constitution may be amended at any time by written recommendation of any active member, provided that (1) the member secures signatures of four other members to the proposed amendment, (2) the member submits this petition to the Board of the Association for action no less than six months prior to the Annual Meeting of the Association, (3) the amendment is approved by a two-thirds majority vote at a minimum of two meetings of the Board, and (4) the amendment is approved by a two-thirds majority vote of the active members attending and voting at the Annual Meeting of the Association.

Section 2. The activities of the Association shall be regulated by the Bylaws. These may be amended at any Annual Meeting by a majority vote of those present and voting, provided that written notification of the prospective amendment has been given to the members prior to the Annual Meeting.

Bylaws

ARTICLE I

CONSTITUENT STATES OF THE ASSOCIATION

The constituent States of the Association include Alabama, Arkansas, Kentucky, Louisiana, Mississippi, and Tennessee.

ARTICLE II

DUTIES OF THE OFFICERS AND DIRECTORS OF THE ASSOCIATION

Section 1.a. The President shall preside at all regular and special meetings of the Association and all regular and special meeting of the Board, or shall designate an individual to assume this responsibility.

b. The President shall ensure the coordination of all activities of the Association through cooperative efforts with the Executive Secretary, shall represent the Association at all regular and special functions, shall speak for the Association at all times while serving as President, and shall prepare the annual budget.

c. The President shall appoint committees of the Association and delegate specific responsibility as necessary.

d. The President shall appoint a newsletter editor who shall edit a newsletter and distribute it to all members of the Association.

e. The President shall appoint an editor for the Proceedings of the Annual Meeting.

Section 2.a. The Vice-President/President-Elect shall assist the President at all times. In the case of the resignation or incapacity of the President, the Vice-President/President-Elect shall assume the office of President and complete the unexpired term. In such case, the Vice-President/President-Elect shall also serve the subsequent full term as President that would have accrued by succession to the office.

b. The Vice-President/President-Elect shall be responsible for the preparation and dissemination of current revisions and additions to the Operations Manual of the Association. These materials shall be distributed at biannual meetings of the Board and to committee chairpersons as appropriate.

Section 3.a. The Secretary-Treasurer shall conduct the correspondence for the Association, keep minutes and records for all regular and special meetings of the Association, keep minutes and records for all meetings of the Board, keep account of and report all monies received, write checks as authorized by the Board, and supervise registration at the Association's Annual Meeting.

b. The Secretary-Treasurer shall prepare and distribute minutes to the Board Members for any regular and special meetings within two weeks after the conclusion of the meeting. Unless there is written notice from any member within four weeks after the distribution of the minutes concerning errors in the minutes, these shall become the official record of the proceedings of the meeting.

c. The Secretary-Treasurer shall prepare and submit the books of the Association for an annual audit to be conducted after the close of the business year by an active member, other than the incoming or outgoing Secretary-Treasurer, appointed by the incoming President.

Section 4. The Directors elected at large shall attend all regular and special business meetings of the Board, stimulate interest in the membership of the Association, and perform such responsibilities as are designated by the President.

Section 5. The Directors who represent the elementary-secondary schools and the State Departments of Education shall attend all regular and special meetings of the Board, coordinate activities within these groups, actively solicit memberships in the Association from their respective groups, and perform such responsibilities as are designated by the President.

Section 6. The Directors who represent the various states shall attend all regular and special meetings of the Board, solicit memberships in the Association from their states, and perform such responsibilities as are designated by the President

Section 7.a. The Executive Secretary shall be responsible for coordinating the work of the Association and serving as advisor in all activities of the Association.

b. The Executive Secretary shall provide liaison with other professional organizations and entities on behalf of the Association.

c. The Executive Secretary shall provide a repository of historical documents and records of the Association.

d. The Executive Secretary shall maintain a current compilation of the policies and procedures approved by the Board.

e. The Executive Secretary shall maintain records of membership for the Association.

f. The Executive Secretary shall perform business and communication functions of the Association as directed by the Board.

Section 8.a. The Executive Committee of the Board will meet on call of the President of the Association. The committee shall have general supervision of the affairs of the Association between meetings of the Board, shall make recommendations to the Board on any matters affecting the Association, and shall perform such other duties as the Board may assign to the Executive Committee.

b. Notice of all meetings of the Executive Committee and actions taken at these meetings shall be reported promptly to the entire membership of the Board. Actions of the Executive Committtee shall be in conformity with these Bylaws and shall be subject to approval of the Board at its next meeting.

ARTICLE III

MEMBERSHIP DUES AND OTHER FEES

The Board of Directors has the authority during any budget year to establish the annual dues and also fees effective the subsequent year.

ARTICLE IV

BOARD OF DIRECTORS

The absence of a Board Member from two meetings during a term of office shall constitute grounds for declaring the office vacant. In such case, the Board shall determine the reasonableness of the absences. If the Board deems that the absences are without merit, it shall declare the office vacant. In the case of an elective office except for the office of Vice-President/President-Elect, the successor to fill the vacancy shall be named by a majority vote of the Board of the Association.

ARTICLE V

AFFILIATION WITH THE ASSOCIATION BY STATE RESEARCH ASSOCIATIONS

Section 1. The Association may establish affiliate relationships with state research associations in the Association's region that promote the purposes of the Association.

Section 2.a. The Association shall act on a request for affiliation by a state research association upon the submission to the President of the Association of a petition requesting affiliation which has been approved by the membership of the state research association and a copy of the constitution and bylaws of the state research association.

b. The establishment of an affiliate relationship between the Association and a state research association must be approved by a majority vote of the members of the Board of the Association attending and voting at a Board meeting and a majority vote of the members of the Association attending and voting at the Annual Meeting of the Association.

Section 3.a. The affiliate relationship between the Association and a state research association shall have as a provision that each organization may appoint a non-voting representative to serve on the board of its affiliate organization. The appointment of the Association's representative to an affiliated state research association shall be made by the President. The appointment of the state research association's representative to the Board of the Association shall be made in the manner prescribed by the state research association.

b. The Association and an affiliated state research association shall distribute to the Officers and Directors of the other organization the communications and publications prepared for the Officers and Directors of the respective organizations.

c. The Association and an affiliated state research association shall advise their members of the activities of both organizations. Each organization shall encourage membership and participation in the other organization by persons from the state served by the state research association.

d. The Association and an affiliated state research association may cite their affiliation with each other where appropriate and desirable. The Association shall be identified as the senior organization because of its multi-state, regional scope.

e. The affiliation between the Association and a state research association shall not infringe upon the automony of either organization nor cause either organization to incur any responsibility for the financial obligations of the other organization.

f. The affiliation between the Association and a state research association may be terminated at any time by the decision of either organization. The decision by the Association to terminate the affiliation with a state research association must be approved by a majority vote of the members of the Board attending and voting at a Board meeting and a majority vote of the members of the Association attending and voting at the Annual Meeting of the Association.

g. Membership of an individual in either the Association or an affiliated state research association shall not constitute nor imply membership in the other organization.

ARTICLE VI

ARCHIVES OF THE ASSOCIATION

Section 1. The Board of the Association may designate one or more educational agencies and/or institutions to serve as official archives of the Association.

Section 2.a. The establishment of archives for the Association shall require approval by a majority vote of the members attending and voting at any regular Board meeting.

b. Archives shall be established by entering into a formal agreement between the Association and an educational agency or institution that includes specifications of the materials to be placed in the archives, the operational procedures for maintaining the archives, the services to be provided for users, and other matters as determined by the Board and the agency or institution.

c. Any educational agency or institution that maintains archives for the Association shall be located within the Association's region.

Section 3.a. An educational agency or institution that maintains archives of the Association shall comply fully with the specifications in the agreement with the Association. Failure to comply with these specifications will constitute cause for termination of the agreement by the Association.

b. The archives must be organized and maintained in such manner that the contents are readily identifiable, accessible, and retrievable to serve users.

c. A report on the status and operation of the archives shall be made at least annually to the Board by the agency or institution that maintains archives of the Association.

Section 4.a. The agreement between the Association and an educational agency or institution that maintains archives for the Association may be terminated by a decision of either party.

b. A decision by the Board of the Association to terminate such an agreement must be approved by a majority vote of the members attending and voting at any regular Board meeting.

c. Written notification of termination by either party shall be given to the other party and must include a delineation of the reason for the decision.

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